The American Artisan
And Hardware Record

Vol. 54. No. 18. CHICAGO, NOVEMBER 2, 1907. $2.00 Per Year.

TURN BUCKLES

A full line of Bolts, Bolt Ends, Rivets, Lag Screw, Nuts, Washers and Carriage Hardware.

COLUMBUS BOLT WORKS, Columbus, O.

IN THE FRONT RANK FOR 25 YEARS

"AMERICAN SEAL"

ELASTIC OIL ROOFING CEMENT
STOVE PUTTY and ASBESTOS
FURNACE CEMENT

and the superior quality of these goods is still universally recognized.

THE WM. CONNORS PAINT MFG. COMPANY
MAKERS
TROY, N. Y.

Western Agent
FRIEDLEY-VOSHARDT CO.
194-204 Mather Street Chicago, Ill.

Southwestern Agent
STOCKHOFF SUPPLY COMPANY
107 N. Main St., St. Louis, Mo.

TRYING to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

NEW DESIGN WORLD'S BEST
TUBULAR TRACK DOOR HANGER

We have increased the diameter of the wheel to 2¼ in., making it the easiest running hanger on the market.

The supplementary wheel prevents derailment. Frame is made of best grade malleable iron. Finished in Aluminum and each pair packed in an individual box, complete with bolts. The track brackets are sliding and may be placed at any point desired. We do not sell catalog houses. Write for prices.

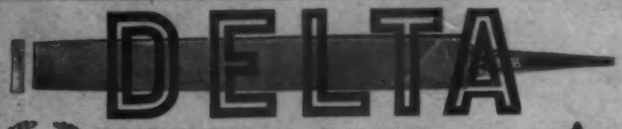
SAFETY DOOR HANGER CO.
Manufacturers
Ashland, Ohio Hamilton, Ont., Can.

U. S. CLOTHES PINS

Never rust, smut, split, or blow off the line.

Any Special Clips made to order.

U. S. CLOTHES PIN COMPANY
Montpelier, Vt., U. S. A.



DELTA

FILES OF QUALITY

CARVER FILE CO., Philadelphia, Pa.
An independent organization not connected with the trust in any form, shape or manner.

TRADE MARK DELTA

FILES

CHAIN—Furnace, Damper or Ventilator

"TRIUMPH"

STRONGEST Chain in the World.

ELEVEN times as strong as Jack Chain.

CUTS ARE EXACT SIZE

"BROWN"

"Triumph" or "Brown"
MADE IN EITHER
Steel or Brass.
GET OUR PRICES.

CHEAPEST because they are the BEST

MADE ONLY BY **THE BRIDGEPORT CHAIN CO., Bridgeport, Conn.**

"The world does not need so much to be informed as it needs to be reminded."

EVERY MAN KNOWS WHY

Pittsburgh leads the world in the manufacture of Iron and Steel Commodities—

IT IS DUE TO HER "NATURAL ADVANTAGES."

We enjoy all of these "natural advantages" and our goods and our prices show it.

The Anthra Cinderella Oak

Is a striking example of "what can be done in Pittsburgh."

Body is 14 ga. steel—Ransom Duplex Grate—with or without Magazine.

Find out about it—you can make good money on it.

Stove and Range Co. of Pittsburgh
PITTSBURGH, PA.

P. S.—All of our plants are running full time.

PRELIMINARY INJUNCTIONS

are granted the

KELSEY HEATING CO.,

against

Richardson & Boynton Co. and Graff Furnace Co.

From the *Post-Standard*
Syracuse, N. Y., Oct. 29th, 1907.

Preliminary injunctions on account of alleged infringement of patents against the Richardson & Boynton Company and the Graff Furnace Company have been granted to the Kelsey Heating Company of this city by United States Judge Archibald of the Central Pennsylvania district. Attorney Howard P. Denison appeared for the Kelsey Heating Company, Judge Archibald rendering his decision from the bench at the close of the argument.

Last month a decision on final hearing was given by Judge Archibald in favor of the Kelsey Heating Company and against the James Spear Stove and Heater Company of Philadelphia in proceedings which had been conducted for a long time and in which the Syracuse company claimed that its patents had been infringed.

WARNING:—We desire to warn all dealers, purchasers and users, that we shall proceed against them for infringement in the event of their purchasing or using furnaces which are made in infringement of our Letters Patent.

KELSEY HEATING CO.

Makers of the

KELSEY WARM AIR GENERATOR. SYRACUSE, N. Y.

Trim Your Window

and seek to

WIN —A— CASH PRIZE IT IS ALMOST IMPOSSIBLE TO LOSE

if you submit a photograph of a good window display of Hardware, Paint, Sporting Goods, Fishing Tackle or Cutlery (anything sold in a Hardware Store) for

THE AMERICAN ARTISAN Competition

Good results have never been known to fail the hardware man that keeps his window attractively trimmed. Even the busiest man will stop long enough to take a look, and once his attention is caught, it undoubtedly means a sale—and still more, a special display always attracts "special" attention, therefore —it will pay you and pay you well, whether you win a cash prize or not.

You've got just as good, and, probably a better chance than any other dealer to "cop" part of that

One Hundred Dollars in Gold

$50.00 $50.00 in Gold for photograph and description of Best Window Display of Hardware.

$25.00 $25.00 in Gold for photograph and description second in excellence.

$15.00 $15.00 in Gold for photograph and description third in excellence.

$10.00 $10.00 in Gold for photograph and description fourth in excellence.

CONTESTANTS—Any hardware dealer, or his assistant or clerk, is eligible to this competition.

TIME—The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than noon, January 1, 1908. Address all photographs to

THE AMERICAN ARTISAN PRIZE COMPETITION

69 DEARBORN STREET, CHICAGO, ILL.

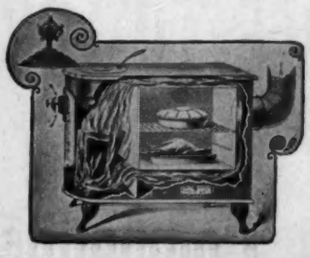
CONDITIONS—Each photograph must be signed by a fictitious name or device, and the same name or device must be put upon a sealed envelope, containing the real name and address of the contestant. This envelope is to be enclosed with the photograph.

AWARD OF PRIZES—The Competition Committee, one of whom will be a practical window trimming man and one a practical hardware man, will pass upon all photographs and descriptions received within the prescribed time and will decide between the contestants.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions of same submitted in this competition.

Sell The Cosby Patent Baker & Heater This Season

The fastest selling stoves on the market, because they fill the needs of the people. Cosby Baker and Heaters do **double** work — they **cook** anything—**heat** any room. Bottom and top of cast iron. If you want to sell more stoves—to make more **money**—write us **at once** for full information. Merchants everywhere are adding the line. We are doing much general advertising.



Union Stove Co., (Inc.)
501-2 Mutual Building **Richmond, Va.**

More Points of General Merit
are found in the

PEORIA LEXINGTON STEEL RANGES

than in any other

They have all the latest improvements of practical value to Steel Ranges. They are the best, most substantial, most perfect operating ranges made. There are

Many Good Features

embodied in the Peoria Lexington Steel Range: Thermometer in Oven, Large Fire Box, Duplex Grate, Deep Ash Pit, Large Bailed Ash Pan, Ash Chute, Large Pouch Feed Door with Register and Zero Drop Handle, Cast Iron Back Flue or Smoke Box, Oven Bottom very heavy, securely braced, NEVER BREAK OVEN DOOR (recently patented), High Closet Roll Top Door, Enamelled Reservoir, Nickel Ornamentation very elaborate, elegant and attractive, Aluminized Oven.

Write for Printed Matter.

Culter & Proctor Stove Co.

Hamilton and Water Street **PEORIA, ILLINOIS**

Our Motto is and Always has been Not How Cheap—But How Good.

Foster's Prize

STEEL RANGE is IT

You will fully appreciate its many excellent qualities. All late improvements of practical value are found in Foster's Prize Steel Range. Order a sample—you will not be disappointed if you secure the agency. Foster's Prize Steel Range is a "dealer's money maker" right from the start.

Send for catalog.

Foster Stove Company
IRONTON, OHIO

The GOLD COIN
Ventiduct Base Burner

SPECIAL FEATURES

Every stove is a Double Heater. Large Hot Air Flues. Very Powerful Base Radiation. Heavy Solid Round Fire Pot. Duplex Grate and Shaking Ring. Grates removable. Automatic Magazine Cover. Tea Kettle Attachment. Dampers cannot warp or burn off. Easy access to Base Flues. Operation perfect and extremely simple. Elaborately trimmed.

The Gold Coin's original design surpasses anything yet produced, and we guarantee more heat with the same amount of fuel from this stove than any other.

The only Ventiduct Base Burner on the market—all others are base imitations.

Catalogue on Request

Chicago Stove Works

Blue Island Ave. and 22nd St., **Chicago, Ill.**

A SALE

is mental thing or process, the intelligent co-operation of one mind with another; it is accomplished by the power of persuasion—the ability to persuade another to your way of thinking.

It is easy to persuade a buyer when selling the **FAULTLESS.**

THE FAULTLESS STOVE WORKS,
ST. CHARLES, ILL.

A Strong Selling Combination

When you consider the quality of materials we use and the quality of finish we produce in the manufacture of

Champion Steel Ranges

You will readily see what a strong selling combination we offer you. By selling the *Champion Steel Range*

You Can Successfully

overcome the cut-price, cut-quality kinds of competition and make a good profit too. Your interest in our catalog is sure to be of money making benefit to you. Send for it.

Champion Steel Range Co.,
CLEVELAND, OHIO.

Economy Gas Heating Stoves

Are

The acknowledged leaders of the world, built for hard service. They are carefully made, beautifully ornamented, quick, powerful heaters, and are

Business Getters

Material, workmanship, style and economy of gas are only a few of the points where the "Economy" is ahead, but they are mighty good

Selling Points

Prices are always as low as goods of corresponding quality can possibly be sold. They are much cheaper in the long run than goods merely made to sell, with no thoughts of the future.

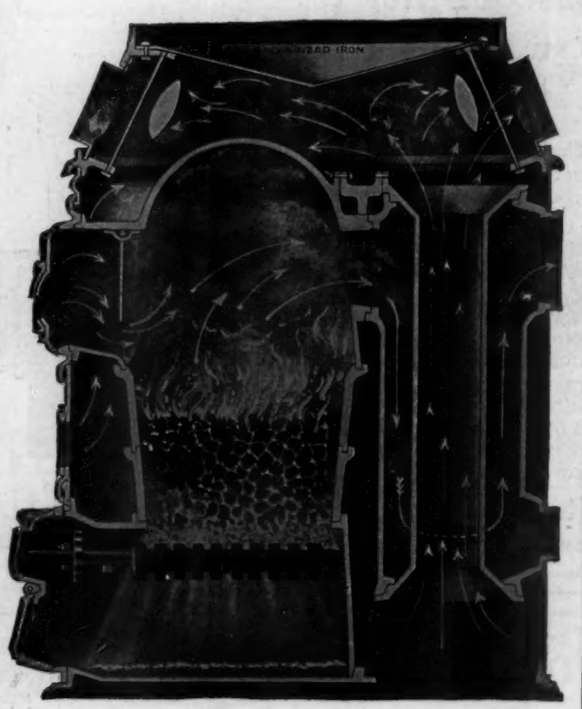
27 Sizes and Styles

We manufacture Gas Goods only.

WRITE FOR CATALOG

Economy Stove Co., - Cleveland, Ohio

WESTERN AGENTS: Steele Hardware Co., Parsons, Kansas.
Richards & Conour Hardware Co., Kansas City, Mo.



Shaded Sectional Cut

of the

"Low Down" Crown Warm Air Furnace

Designed to show the direction taken by the gases and warm air. Also the thickness and staunchness of its parts.

March-Brownback Stove Co.

POTTSTOWN, PA.

B. & B. HEATER QUALITY

We occasionally meet people who do not know that B. & B. stands for "Brightest and Best," but we have as yet to find the first person who does not regard our trade-mark as another name for quality. We suppose this is the natural fruit of our many years at successful Oil Stove building: whatever its origin, we regard it as the real source of our increasing business, our expanding departments and our broadening line.

Our Customers Stay With Us

Our confidence that we are not overstating the B. & B. case is established by the fact that a study of our earliest business records shows many names still numbered among our most valued customers. They have found the B. & B. line too good to lose and their Oil Stove prosperity has been side by side with our own.

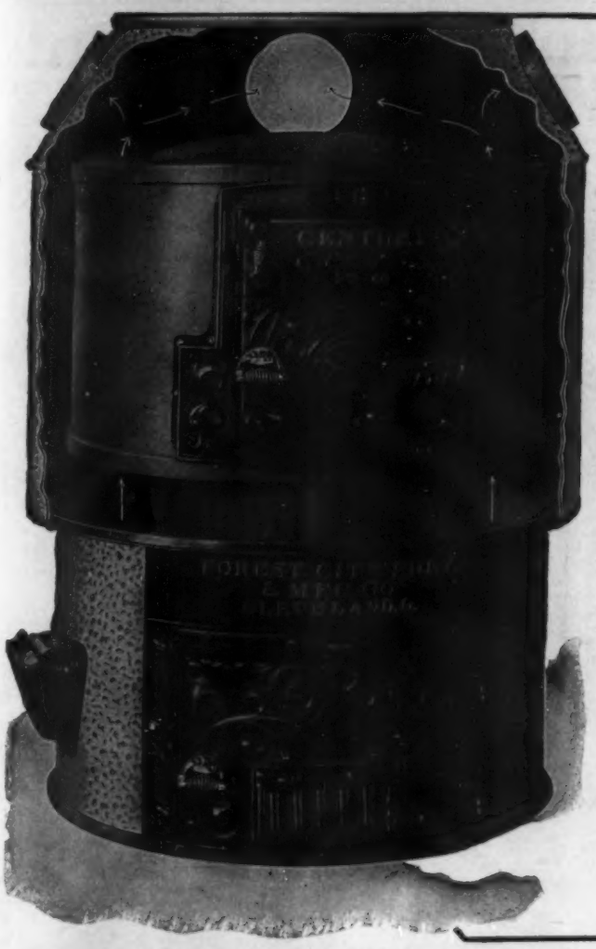
Prices for 1907 That Will Increase Your Trade

Figures that we are offering, particularly on three new patterns are such that with their assistance you will be safely intrenched against any possible attacks from your competitor. Our schedule is yours for the asking and with it you will receive our printed matter which will give you a complete knowledge of our line.

Our new No. 33 is the gem of all Oil Heaters. The general design was worked out by an artist of the first-class and it fairly shines with a complete finish of brilliant nickel. We are sincere in considering it the handsomest Oil Heater ever mounted.

GLAZIER STOVE COMPANY, Chelsea, Michigan

Chicago Agents, W. D. SAGER, 38 Michigan St.



Century
Warm Air
Furnace

¶ Has many special features which make it the most desirable furnace for any dealer to handle.

¶ The Radiator has triple radiating faces.

¶ The Large Combustion Chamber, formed by the radiator, is a special feature of the Century Furnace, making possible a perfect combustion of gases and deriving the fullest benefits from the fuel consumed.

¶ The Feed Door is Double and unusually large.

¶ The Firepot is deep and made in sections.

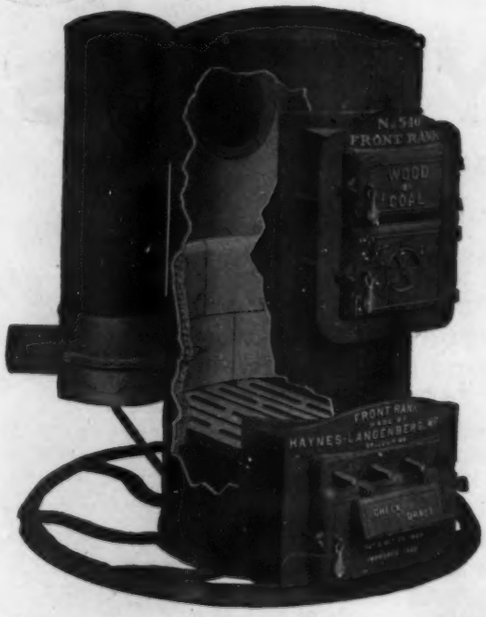
¶ The Ashpit is very large and the heater is easily cleaned and operated.

Send for New Catalogue.

The Forest City Foundry & Manufacturing Company.

Cleveland, Ohio.

For Economy
For Durability
For Lasting Results



INSTALL THE

FRONT RANK STEEL FURNACE

Built Like A Boiler.
Absolutely Gas and Smoke Proof.
Over 10,000 in Use in Our Home City
ST. LOUIS
Thousands Elsewhere.

We want agents everywhere. Write for our attractive Proposition, catalog and terms. Write us today.

HAYNES-LANGENBERG MFG. CO.

4045-4047 Forest Park Boul., ST. LOUIS, MO.

Large Radiating Surface Important

It is the radiating surface which determines the amount of heat a furnace is going to get out of the fuel used. The size of the fire pot determines the amount of fuel a furnace will burn.

Lennox Torrid Zone

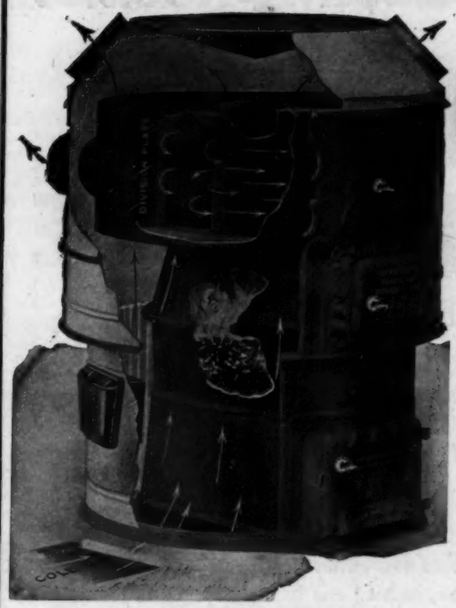
steel furnaces have very large radiating surface nearly doubled in area by the extra indirect radiator through which the hot smoke is made to pass for eight feet of smoke travel. A hanging partition in this radiator causes the smoke to descend within eight inches of the bottom of the radiator before passing up the other side. This is longer smoke travel than any other furnace has and is possible only by reason of the convenient direct and indirect draft change. In Torrid Zone furnaces the indirect draft does not have to be strong enough at all times to permit of opening the fuel door for the direct draft can be had at one pull of a damper rod. Thus when fuel door is closed and damper is turned for indirect draft more of the hot gases can be held back from escaping up the chimney and used as fuel. This makes Torrid Zone furnaces fuel savers. It is only one of the many great selling points of this furnace.

WRITE FOR 40-PAGE CATALOG

Lennox Furnace Co.

Marshalltown, Iowa

The General Excellence of BOYNTON'S



BOYNTON'S PATRIOT FURNACE.

Warm Air Furnaces

Hot Water Heaters and Steam Boilers

are known the world over. They have a wide and favorable reputation backed by **"Satisfaction,"** which they have never failed to give during the past sixty (60) years.

THE MOST DURABLE, POWERFUL AND RELIABLE GOODS MADE. QUICKEST TO SELL—EASIEST TO OPERATE

Boynton Furnaces are made of cast iron or steel plate or combination of both—portable or brick set—for hard or soft coal, wood, lignite or any fuel, and are adapted for any climate.

THE NEW PATENT SQUARE FIREPOT FOUND IN ALL BOYNTON'S LATEST PATTERN FURNACES

SEND FOR CATALOGUE AND PRICE LIST

THE BOYNTON FURNACE CO.

147-149 LAKE STREET
CHICAGO, ILL.
207-209 WATER STREET
NEW YORK, N. Y.

Dealers Who Are Selling

THE NEW AKRON
AIR BLAST FURNACE
CONTROL THE TRADE

The NEW AKRON AIR BLAST embodies all the **good features** of the old original and many new ones. You can not afford to handle any other furnace when you can get the AKRON AIR BLAST. Read the testimonials from parties who have used the furnace from 15 to 17 years.

Not One Dollars' Worth of Repairs in 11 Years. Can Find No One Who Used Other Makes to Equal Mine in Economy.

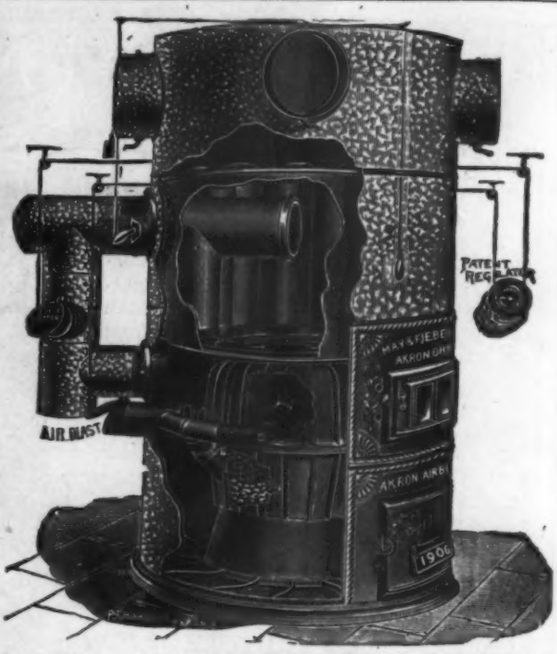
Akron, O., March 16, 1907.

MAY & FIEBEGER, Akron, O.

GENTLEMEN:—For eleven years I have used one of your Air Blast Furnaces in my home of eight rooms, to the entire satisfaction of myself and family without one dollars' worth of repairs, excepting one new smoke stack, and this would not have had to be replaced, only that in remodeling my house several years ago, when I had to take down the furnace, thought best to replace the stack with a new one. I can say without fear of being contradicted, that the grate and inside linings are practically as good as when the furnace was put in. And I have yet to find any one who heats their house with any other furnace as economical as does the Air Blast and I have had large experience with your Furnaces in Public Buildings.

It is with pleasure I make this acknowledgment and I cheerfully recommend it to any who are in quest of a good furnace. Yours truly,

ISAAC C. GIBBONS.



Send for Catalogue and Prices to the Manufacturers

MAY & FIEBEGER :: AKRON, OHIO

The Record of the

FLORAL CITY FURNACES

During the past ten years has never been equalled. They are, as a line, the BEST FITTED AND MOST POWERFUL, ECONOMICAL AND DURABLE FURNACES MADE, and we stand ready to prove this at any time by actual test. Perfect castings, skillful workmanship, careful supervision, these are the features that mark the superiority of the Floral City.

Monroe Foundry & Furnace Co., Monroe, Mich.

IT'S THE SWELLEST THING OUT

We have just published our 1907 catalog, and although we say it ourselves, it has no equal.

This also is true of the line of goods it illustrates and describes, viz— the

"MUELLER"

furnaces and combination heaters.

A Big Line—Large Variety.

If you are interested in "MUELLER" heaters, send for a copy of catalog.

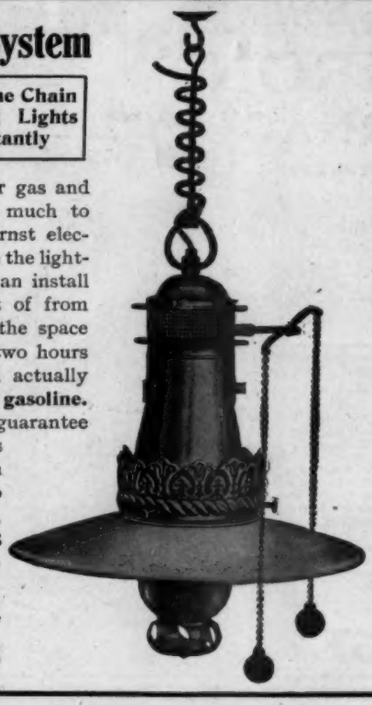
L. J. MUELLER FURNACE COMPANY

ESTABLISHED 1857

191 Reed Street MILWAUKEE, WIS.

A Gasoline Lighting System That Requires No Generating

Pull the Chain and it Lights Instantly



Is as convenient as electricity or gas and costs less than one-twentieth as much to operate. Looks like the latest Nernst electric arc lights. It will revolutionize the lighting of stores and homes. Anyone can install and own a lighting plant at a cost of from $20.00 up, according to the size of the space to be lighted. **500 Candle Power,** two hours a night for **a Nickel a Week.** Will actually run 40 to 60 hours on **one gallon of gasoline.** Every outfit carries an eleven year guarantee backed by a responsibility that is unquestionable. The only objection to gasoline lighting, viz.:—having to generate the lights before using, entirely overcome. Send for our 48 page catalogue showing many beautiful designs.

GLORIA LIGHT COMPANY
17-19 N. CURTIS ST., CHICAGO

Economy, Cleanliness and Durability All Combined in the

Moncrief
Warm Air Furnace

A few of the many good points of the MONCRIEF
- All Cast Iron
- Moncrief Duplex Grate
- Large Radiating Surface
- Top Return Flue
- Double Fire Pot
- Large Grate Surface

HENRY & SCHEIBLE CO.
825-29 Long Avenue, N. W.
CLEVELAND, O.

Western Sales Agent
J. C. KIMMEL, 3314 E. 15th St.
Kansas City, Mo.

The Ideal Epworth Acetylene Co.
INCORPORATED

Write for Circulars and Terms

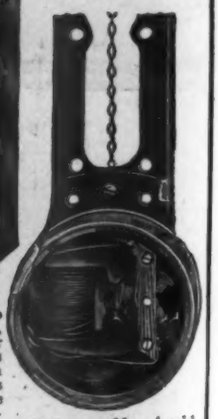
The Ideal Epworth Acetylene Generators

Are Ideal in construction, Ideal in light producing power, Ideal in giving out steady light, Ideal in selling qualities, Ideal in lighting Dwellings, Stores, Hotels, Churches and Towns. Acetylene light is the safest, best, cheapest, brightest, finest light in the world, when produced in the Ideal Epworth Generators. Satisfaction guaranteed. Agents wanted.

IDEAL EPWORTH ACETYLENE CO., (Successors to Epworth Gas, Light & Heating Co., Waterloo, Iowa,)
JOHNSTON, PA. WATERLOO, IOWA

Most Accurate of all Furnace Regulators

THE
C. D. HOWARD AUTOMATIC
REGULATES EXACTLY



Perfectly simple to install. No weights, clock work or springs. Operates without attention all winter and keeps the temperature uniform at any desired point. Builders and Furnace Men should see our new Descriptive Booklet which tells why the C. D. Howard Automatic is cheapest for you and best for your customer. Sent Free.

Retails for $25.00. Write for Trade Discounts.

C. D. HOWARD AUTOMATIC FURNACE REGULATOR COMPANY,
127 West Fayette Street, SYRACUSE, N. Y.

The APEX Warm Air Furnace

is an extra heavy, durable furnace with a most powerful heating capacity. Its construction is strong enough to resist the fiercest fire. Absolutely gas tight. Will burn hard coal, soft coal or coke. Simple to to operate, economical and thoroughly efficient.

Write Today for Catalogue

Youngstown Furnace & Supply Co.
Chicago Office, 211-213 Lake St. Youngstown, Ohio
Rood & McIntyre, Kansas City, Mo., Southwestern Distributors

C. De Witt Wagner, 40[illegible] Third Ave., Cedar Rapids, Ia., writes: "Please accept my thanks for your help in securing a tinner for me. I had letters from several states which goes to show that The Artisan is read."

Heavy Steel Furnace

With Large Feed Door

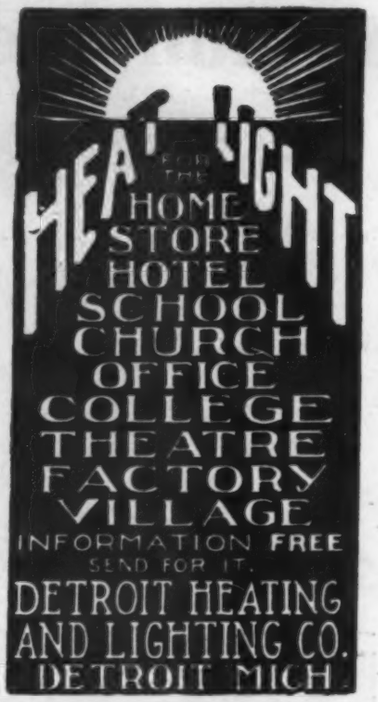
A Furnace of extraordinary Power and Quick Heating Capacity.

Made of the best quality of very heavy Boiler Plates with Front and Back Radiator.

Absolutely Gas, Smoke and Dust-Proof

Write for printed matter and prices.

Walter S. Rait & Co.
211-213 Lake St., Chicago, Ill.



GILT EDGE BADGER
For Hard Coal

COMBINES ALL THE FEATURES

necessary to make it a most convenient perfect working and economical furnace.

CAST FIRE SECTION

with steel dome and return flue radiator.

PERFECTLY BUILT

and perfectly mounted and having the best of all modern conveniences. Made in 20, 23, 26 and 29-inch fire-pots.

CATALOGUE ON APPLICATION

R. J. SCHWAB & SONS' CO.,
MILWAUKEE, WIS.

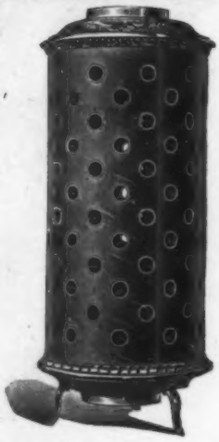
SAVE ONE-HALF YOUR FUEL
by using the
Rochester Radiator

Satisfaction guaranteed or money refunded. Over 100,000 of them in use. Fits any stove or furnace. Price from $2.00 to $12.00 We make the original and genuine "ROCHESTER RADIATOR."

WE DO NOT SELL TO CATALOGUE HOUSES.

For Hard or Soft Coal, Wood or Gas. We refer all inquiries to you from your town when you carry a stock of our Radiators. We guarantee our Radiators not to choke or interfere with the draught, they are easily cleaned

Write for Descriptive Catalogue and prices.

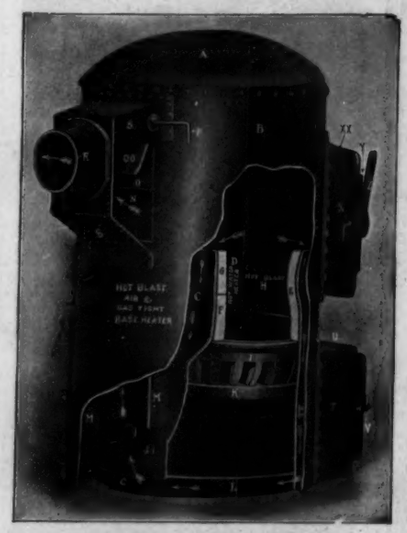


ROCHESTER RADIATOR CO.

120 FURNACE STREET, ROCHESTER, N. Y.

Boston, Mass., S. M Howes Co.
St. Paul, Minn., Farwell, Ozmun, Kirk & Co.
Sioux City, Ia., Knapp & Spencer Co.
Kansas City, Mo., The Harbison & Modlea Mfg. Co.
Kingston, N. Y., Canfield Supply Co
Detroit, Mich., Standart Bros., Ltd.
Omaha, Neb., Wright & Wilhelmy Co.
Chicago, Ill., Orr & Lockett Hdw. Co.
Portland, Ore., F. W Isherwood, Esq.
Hamilton, Ont., The D. Moore Co., Ltd

Evolution of the Perfect Furnace



The New and Better Way of Home Heating

We make our own complete heating plants, warm air and hot water.

Offices and Exhibit Rooms

40 Dearborn St., Chicago, Ill.

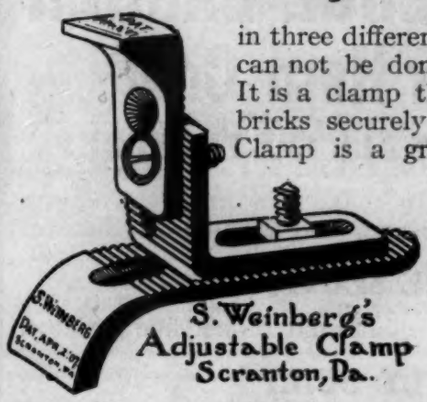
Factory
Chicago Heights

Live Dealers Wanted

Mail orders for immediate shipments received Oct. 8th, 69 furnaces. For Oct. 9th, 140 furnaces. For Oct. 10th, 37 furnaces. Oct. 11th, 31 furnaces.

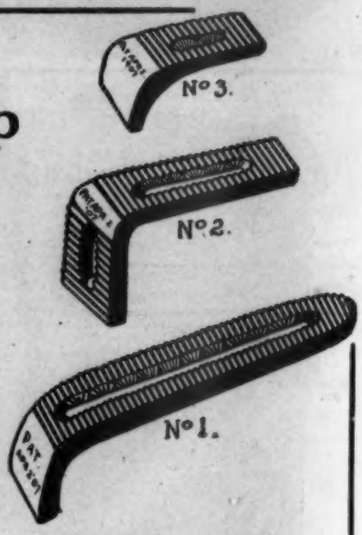
QUAKER MFG. CO.

You Can Use **Weinberg's New Adjustable Clamp**



in three different places at one time. This can not be done with an ordinary clamp. It is a clamp that **fits** and **holds** oven bricks securely in place. The Weinberg Clamp is a great improvement over all others. It will set in any position, front or back, so that the cross piece will fit perfectly whether warped or not.

Send for prices and circular.



Samuel Weinberg, The Stove Repair House, 306 Penn Avenue, **SCRANTON, PA.**

BOOMER FURNACES

Quickly Establish a Local Reputation

It is always a little hard to introduce an old Furnace in New Territory.

But the first BOOMER Furnace you sell will pave the way for an unlimited profitable furnace business.

It is likewise better to take an old, time-tried furnace like the BOOMER, and sell it in new territory, than to continue selling, or endeavoring to sell, a Furnace that does not "stand up" the way you would like to have it.

The BOOMER Furnace is one of those always-reliable, sure-to-give-satisfaction commodities that is a genuine pleasure to sell.

The BOOMER Agency, remember, has attractive inducements.

We'll gladly send you our Furnace catalogue upon request.

The HESS-SNYDER COMPANY
Manufacturers **MASSILLON, OHIO**

Electro Plating Plants

Installed Complete

Electro Galvanizing Outfits without royalty on solution.

Low Voltage Generators and **Direct Connected Sets** from 50-10 000 ampere capacity.

The **Rotoplater** "patented" polishes and plates at one operation in all solutions on small work.

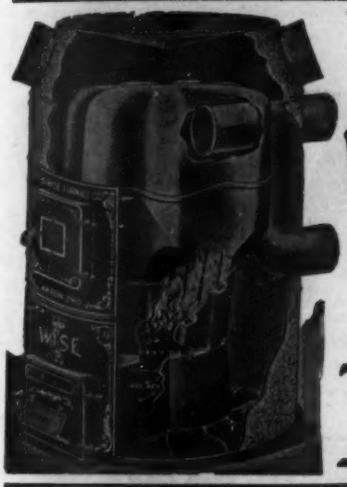
Anodes of all metals; also **Patent Corrugated** and **Silverite Nickel Anodes,** patented.

Manufacturers of all Supplies for Polishing and Plating.

Write For Catalogue.

Zucker & Levett & Loeb Co.,

516-524 W. 25th St., NEW YORK CITY



Merit will win

That is why the

Wise Furnace

is on top.

Send for catalogue and discounts.

The Wise Furnace Co.

AKRON, OHIO

MAKE MORE MONEY

That's easily done—install Improved Handy Furnace Pipe. It is absolutely the very best furnace pipe on the market today. It pays the dealer a larger profit than any other because he can

SAVE MORE TIME

and time means money, every time. Improved Handy Furnace Pipe can be practically thrown together. The one end is ⅛-in. larger than the other, and it has the longest slip of any double wall pipe made—therefore you can

SAVE MORE LABOR

IMPROVED

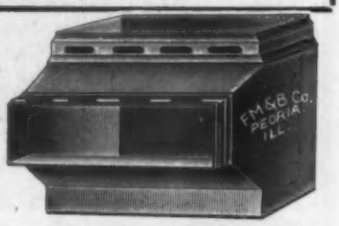
HANDY

FURNACE PIPE

Send for Samples and Catalog—FREE.

F. MEYER & BRO. CO.

Peoria, Illinois.



"NEW IDEA" CONVEX REGISTERS

Actually save one-half the workmen's time in installing. Made in standard sizes and require no special tin work.

The price will interest you.

INDEPENDENT REGISTER & MANUFACTURING CO.
CLEVELAND, OHIO

Hold Fast Hook and Bolt Device
Patent Pending

Symonds Wall Register

Showing New Holdfast Hook and Bolt Device.

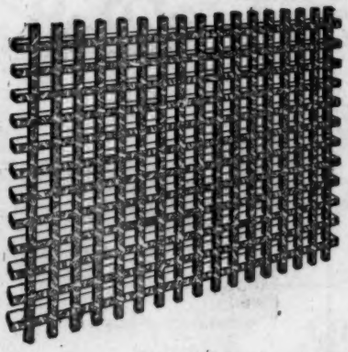
One of the styles we make to install above baseboard — installation not necessary until building is finished.

New Hook and Bolt device eliminates tin strap, rivets, cleats, wood, screws, wire and nails. No breaking of plaster. Conforms with strictest fire laws. Saves time and money. Do you catch on, the hook does.

SYMONDS MFG. CO., EAST ST. LOUIS ILLINOIS

When a logger places a wedge in a log and hits it a blow he does not know how much of a split the effort will make, but he does know that if he continues to hit the wedge the log will soon lie in twain. The driving wedge to business is advertising. You cannot expect to make your success with a single ad, no matter how large. Continual rapping does it.

The Heating and Ventilating Question Has Always Been a Problem



¶ The objection to Hot Air Heating is the unsightly Black Iron Cold Air Face that should be installed in the house.

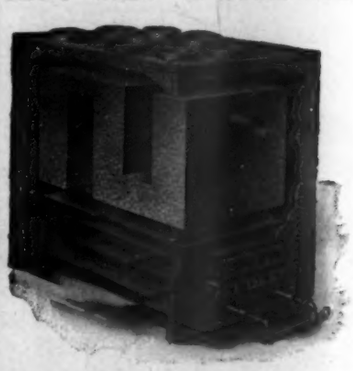
¶ The objection to Steam or Hot Water Heating is the unsightly Radiator.

¶ **Now we have solved the problem. We make Hardwood Cold Air Faces for Seat Fronts, Stair Panels, Side Wall, etc.**

WRITE US FOR THE PRICE LIST

THE WOODEN VENTILATOR CO., East Palestine, Ohio

Natural Gas Hot Air Furnaces.



The "Manest"

Is easy to operate. Is gas tight. Utilizes the waste heat. Has exceptionally large radiating surface. Write for the agency in your locality. Write today.

The Mannen & Esterly Co.
CLEVELAND, OHIO.

Large 10 oz. Can.

We Make It!

The BEST Air Drying Iron Enamel Made.

Try a 1-Dozen Case From Your Jobber

Nickel Plate Stove Polish Co.
CHICAGO.

Our New Special Side Wall Register Scale Design

(Openings 2½ inches)

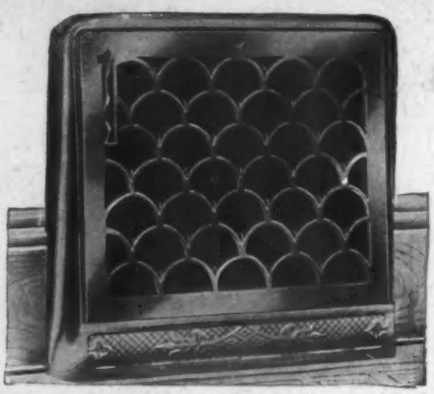
A Baseboard Register that takes a Supply Pipe 3 inches deeper than studding conveniently set with a wall frame.

CAST IRON REGISTERS WILL NOT WARP OR RUST BUT WILL LAST A LIFETIME.

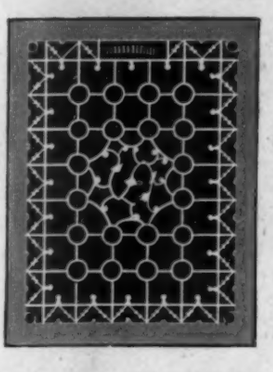
Our Registers sell on their merits, because they have been the Leaders in Finish, Workmanship and LASTING QUALITIES FOR OVER SIXTY YEARS

TUTTLE & BAILEY MFG. CO.

NEW YORK CHICAGO BOSTON



SCALE DESIGN



REGISTERS

WE DO NOT BELONG TO THE ASSOCIATION

MAKERS OF WARM AIR REGISTERS

Neat in design and of superior finish. Are interchangeable with all first class makes. We have the largest foundry of any Register manufacturers in the United States.

Our molding room 75x950 feet. We carry large stock insuring prompt shipment.

Get our prices. We can save you 25%.

STANDARD REGISTER CO., Cleveland, Ohio

Register Department of The Standard Foundry & Mfg. Co.

THE LATEST NOVELTY

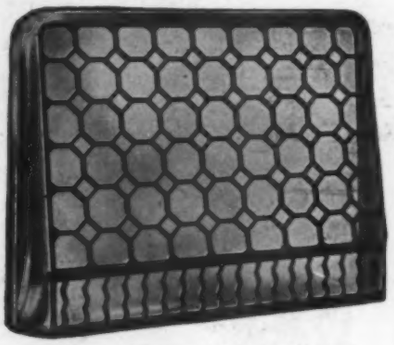
Side Wall Cold Air Inlets

LOOK WELL — WORK WELL

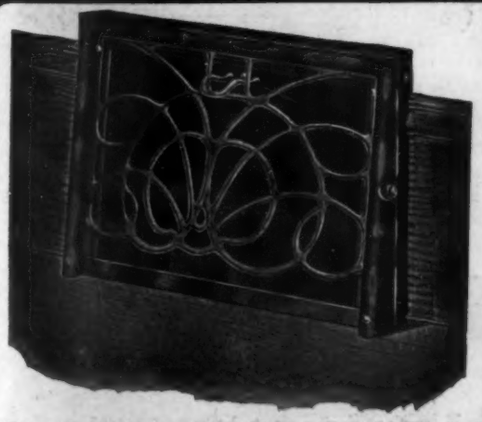
Large Capacity ═══ Small Price

WE MAKE ALL KINDS OF REGISTERS

Ferrosteel Company, Cleveland, Ohio



SIDE WALL COLD AIR INLET



REGISTERS

Semi-Steel Floor—Cast Iron Floor

Wrought Steel Special Side Wall

Cast Iron Special Side Wall

We make them all—in all Finishes

Get our prices before buying

ESTABLISHED 1857

L. J. MUELLER FURNACE CO., 191 REED STREET, Milwaukee, Wis.

The "SELL-EM-ALL" $5 ASSORTMENT

Mouse Traps Rat Traps

"You Want what you Want in the Quantity you Want it."

Here they are—and not a trap you don't want.

NO more trouble as to Mouse and Rat Traps. No more dead stock from having to buy so many lines separately—having to order a dozen of a kind when you don't want so many. No more lost sales from not having what **is** wanted.

The list of traps contained in this new $5 Assortment is based on the average sales of hundreds of retail dealers, and the proportions are right. Makes a fine window display. At the retail price this Assortment will bring you at least **$10.**—a handsome profit on a small investment. **ASK YOUR JOBBER.**

No Trouble Big Profits Everybody Pleased

ANIMAL TRAP CO., LITITZ, PA., U. S. A.

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES INCLUDING CANADA, ONE YEAR, POSTAGE PAID, $4.00

Address all Letters, Communications, and Remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, NOVEMBER 2, 1907.

WHAT shall it profit a man if he advertise freely but fail to take proper care of the visitor in the store?

A WELL supplied ten-cent counter as an advertising proposition is a good idea for hardware stores. It is wonderful how many tempting things may be gathered for a department of this kind, all of which will return a satisfactory profit, and the meat of the suggestion is in the fact that it is a self-running institution. Many prospective buyers are tempted indoors by it. They practically wait upon themselves if the goods are well and conveniently displayed and they, as a rule, feel that, inasmuch as they have paid something into the store, they have a right to look about and examine other things, as they would not feel privileged to do under other conditions, and thus many larger sales are induced. It is a good proposition from an advertising point of view anyway.

The Outlook for Business.

AMONG the many valuable and encouraging addresses made at the recent Atlantic City convention of American Hardware Manufacturers' Association was one on existing business conditions and the future outlook by Mr. Frank Baackes, vice-president of the American Steel & Wire Company. Mr. Baackes took note of the flurry in financial circles, that was causing no little agitation throughout the country, but advised his hearers against being stampeded and urged them very strongly not to give way to pessimism. "There is nothing, in my opinion," he said, "to be pessimistic about. I think we should be conservative, not pessimistic, and that 'Shoals' should be our watchword for the future. If we all use common sense, that sixth sense which grows and develops as we grow older, I think we will weather all the storms that blow around our heads."

There are many who will support Mr. Baackes' contention that current events in the financial world signify simply a return to normal conditions. He spoke very plainly to his fellow-manufacturers when he said:

"Gentlemen, there is not a man in this room who must not admit that the situation of the past two years has been beyond endurance. We were all doing too much business. I know that has been the case with us. We have been behind eight and ten months and all of a sudden just because we have not but three months' business in sight we think business is going to hell.

"Gentlemen, we are just coming down to normal conditions. I know of times before these recent prosperous days that when we had thirty or sixty days' business on our books we patted ourselves on the backs and said what great fellows we are. Gentlemen, we are coming down to that normal condition to-day. You will not be able to sell one more pound of material at 25 per cent less than you do at present prices. Stand by your guns and adopt the policy of the United States Steel Corporation. Live and let live, and respect your competitor."

Referring to varying sentiment in different parts of the country Mr. Baackes pointed out that while the sky might be overcast in the East there is abounding optimism and cheerfulness in the West. Present financial conditions, he declared, are absolutely unnatural. It is an unprecedented state of affairs to see so much prosperity in the world of manufacture and commerce and so much adversity in the world of finance. Therefore the attitude of the manufacturer and the merchant should be one of hopeful conservatism. A middle-of-the-road policy should be followed and all panicky feelings should be suppressed as opposed to common sense.

It is not only in the iron and steel business that manufacturers' order-books are still crowded and likely to remain so. The clothing manufacturers of the country report that they have never had so much business on their books and it is simply a question of getting wool. Manufacturers in many other lines that are a sure indication of general prosperity report a similar condition and there is absolutely no reason to expect that the passing flurry in high finance will have other than a beneficial effect in the industrial world. By a beneficial effect we mean the restoration of conditions to a normal point. We have been perhaps too feverishly active during the past two or three years, and a slowing down will not be unwelcome to thoughtful, conservative business men.

At the very foundation of our national prosperity lies the prosperous condition of the farmer. Throughout the length and breadth of the land to-day the agriculturist is enjoying prosperity that absolutely ensures his purchasing power for a long time to come. Though the crops of the present year have not generally been quite so large as in some former years much higher prices have prevailed for all products of the farm and the farmer is better off on that account. The utmost activity prevails in all lines of industry and will continue as long as the purchasing power of the masses of our people remains at its present height. Our population is increasing rapidly, which means additional demands upon our manufacturers to supply the necessaries and comforts of life according to the American standard of living, and nothing apparently can depress industrial conditions in this great resourceful country save an ex-

tended feeling and spirit of depression on the part of our merchants and manufacturers themselves. Against such a spirit and its expression all wise business men will contend most vigorously as against a common enemy, a threatening danger.

As Mr. Baackes so well said at Atlantic City, amid the responsive cheers of the leading manufacturers in the hardware trade, "let us not run away with ourselves, but rather in this emergency cultivate and develop our sixth sense, our common sense, and regard the present and the future with plenary confidence, hope and good cheer."

Let the hardware trade set an example of justifiable optimism to all others and thereby do its manly part in restoring a general feeling of confidence throughout the commercial world—such a feeling as the West, happily, has not surrendered for a single moment, even in view of the difficulties that have recently befallen eastern exponents of high finance.

To Make Advertising Pay.

It is no uncommon thing to find money spent for retail advertising absolutely thrown away through a lack of proper attention to the public when they visit the store. Many hardware retailers do not realize how easy it is thus to throw away their money—or rather to throw away their opportunities for doing business.

The effects of good advertising are often lost or spoilt by a lack of good salesmanship. To obtain the best results, advertising and salesmanship must go hand in hand. Neither can be neglected with impunity. It is not enough to get the people into the store—they must be properly received and attended to when there.

How many merchants have advertised special sales of goods without fully instructing their clerks as to their plans. How many have failed to enjoy the full advantage of holiday advertising because their employes were not thoroughly posted on the various lines of holiday goods carried in stock or lacked the tact and gumption to receive the visitors in a friendly, holiday spirit. How many a merchant has not received his full share of public patronage on special occasions, such as local carnivals, fairs and the like, because his clerks—and maybe he himself—were not prepared to handle unusual crowds skillfully, to entertain them to their liking, or to show them the goods they might be induced to buy.

The proper entertainment of the prospective customer is a matter of the very highest importance. No matter whether he has been attracted to the store by general or special advertising, his reception should be planned and prepared for. At holiday times let the holiday goods be prominently displayed and after the friendly greeting, let the visitor's attention be directed to the special display. Many a man—and many a woman, too, for that matter—enters a store with no very definite idea of what they want, but in a purchasing spirit, and the nature of their purchases may depend entirely upon the manner of their reception and the quality of the salesmanship employed in waiting upon them. This is especially true in holiday seasons, such as that which will soon open and the wise merchant will ask himself the question, "Am I prepared at all points to do justice to myself, to my visitors, and to my stock?"

It is of prime importance ,of course, that the window and stock displays should be timely and seasonable. We do not gather grapes of thorns, nor figs of thistles, and unseasonable goods can usually be relegated to the background with advantage. The clerks should be drilled and instructed how best to secure results on every special occasion, and this will depend very largely on the experience and individual example of the proprietor. If the visitor can be made to feel that he or she is regarded as a welcome guest, and not merely as a possible victim, the best effect will be produced and the reciprocal purchasing spirit will most likely be aroused. If, on the other hand, the reception of the visitor is of the why-are-you-here order, he or she is very apt to remember that John Schmidt, the hardware man across the square, has a warmer store and a bright welcoming smile—and a customer may be lost.

It is the business of a good hardware man, be he proprietor or clerk, not only to know the goods in the store, but to be able to handle visitors so that the store may reap the fullest possible benefit from their presence. Every visitor is a prospective customer and should be cultivated with that idea in view.

In a general way it may be said that no opportunity should be lost to bring visitors to the store by means of special sales. The goods to be offered at such sales are of infinite variety. Special sales can always be worked up by the knowing merchant, by means of price inducements and in other ways.

A great physician once said that in forty years he had never once allowed himself to have a headache, meaning thereby, not that he had never had headaches, but that he had schooled himself to ignore them. In like manner why may not the wise merchant, by careful manipulation of special sales, enable himself to ignore dull seasons?

But whether the sale be of a special character or the ordinary routine of the store, it is all-important that proper preparation be made for the profitable reception and handling of the public.

It has been demonstrated that even burglars, sharp as they are credited with being, break up and go to pieces at times, and this came off down at Peotone, Illinois, but a few days ago. Conrad's hardware store in the place named was tapped late in the summer and the burglars were caught "with the goods on 'em." A week ago the case went to the grand jury, which stuck for a long wrangle over it. After twenty-four hours had passed and the jury stood eleven for acquittal and one for conviction, a report leaked out that it stood eleven to one, but for whom was not stated, and here's where the burgs went up in the air by going to the front office (the court) and confessing and taking their medicine in the form of a modified dose of imprisonment while the jury was still in session. They were acquitted on the one hand and self-convicted on the other, while all Peotone grinned a good broad grin at them.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

"There's a quiet little 'cafe,'
In a quiet little street."

And that's where I'm afraid I overlooked a bet in my report of the hardware conventions at Atlantic City, for in segregated mayonnaise form the details thereof are now trailing in upon me. It was here, I'm told, that the "Briny Club" had its birth and achieved its hegira. The "Briny Club" was an impromptu one-night stand affair organized by red, white and blue ribboned delegates who, quitting the convivialities of elsewhere, had sought out the quiet little "dump" above chronicled and thereby jumped from the frying pan into the bowels of a volcano, for the session was a ripper from ripville and everything went except the clock, I'm left to assume that it was more or less informal by the fact that when delegates couldn't hold up their hands during the administration of the oath of allegiance it went all right, if somebody else helped them to get 'em up in the air and pull 'em down again. Everybody was pledged to sing a song, tell a story, dance, or 23, and anything original was barred. Here's what I get of the programme as it comes to me post morten in mayonaised form.

An Ohio member started the worry by singing that touching ballad entitled "The Fairy From Kankakee." A southern member sang "Annie Laurie" until the windows rattled and they locked the doors. A New York member handed them the koochy-koochy dance until a Missouri member fell into the coal box and a riot call was pending and they choked him off. A Pennsylvania member rendered "The Old Oaken Bucket" until it was so thoroughly rendered that it wouldn't hold water or anything else. A veteran Indiana member did the highland fling to the accompaniment of a nickel-in-the-slot phonograph. Many stories were told by nonvocalists and non-terpsichoreans among the tri-color delegates and some crackerjacks were handed out that I'd like to repeat, but space forbids, as the editor reminds me, and then again he don't want to lose out with the United States of America by getting the paper thrown out of the mails. Finally it was discovered that the Chicago member hadn't been heard from, so they woke him up and perpendicularized him and he came near losing his key by remarking, "It is a condition, not a theory, that confronts us," which is, of course, original—by Grover Cleveland. The honored Chicago member was in a rather bad state (New Jersey), but pulled himself together gallantly and bored into the hearts and memories of "the delegates here assembled" by reciting Eugene Field's touching poem "The Clink of the Ice," from which I will tear off a few extracts:

Notably fond of music, I dote on a sweeter tone
Than ever the harp has uttered or ever the lute has known.
When I wake at 5 in the morning with a feeling in my head
Suggestive of mild excesses before I retired to bed;
When a small but fierce volcano vexes me sore inside.
And my throat and mouth are furred with a fur that seemeth a buffalo hide,
How gracious those dews of solace that over my senses fall
At the clink of the ice in the pitcher the boy brings up the hall!

I've dreamt of the fiery furnace that was one vast bulk of flame,
And that I was Abednego a-wallowing in that same;
And I've dreamt I was a crater, possessed of a mad desire
To vomit molten lava and to snort big gobs of fire
I've dreamt I was Roman candles and rockets that fizzed and screamed.
In short I have dreamt the cussedest dreams that ever a human dreamed;
But all the red-hot fancies were scattered quick as a wink
When the spirit within that pitcher went clinking its clinkety-clink.

* * *

May blessings be showered upon the man who first devised this drink
That happens along at 5 a. m. with its rapturous clinkety-clink!
I never have felt the cooling flood go sizzling down my throat
But what I vowed to hymn a hymn to that clinkety-clink devote;
So now in the prime of my manhood, I polish this lyric gem
For the uses of all good fellows who are thirsty at 5 a. m.
But specially for those fellows who have known the pleasing thrall
Of the clink of the ice in the pitcher the boy brings up the hall.

Following the recital the bunch in concert sang, "Good Night, Ladies," probably for the benefit of the ladies who were making after-breakfast searches for them, and here the "Briny Club" went up in the air and vanished forever.

* * *

Bobbie Burns said, "The best laid plans of mice and men gang aft aglee." My friend Jimmie Glue says, "There's many a favorite among the 'also rans,'" so you may take your pick between the wisdom of Bobbie and the wisdom of Jimmie and apply it to suit yourself to the matter of locating the two big hardware conventions for 1908 as it was worked out by the red and blue ribboned "time and place" committees at about the windup of the big hardware conventions' proceedings at Atlantic City.

* * *

There was in the air a most persistent and determined flavor of Niagara Falls for 1908 and as this is not an Atlantic City flavor by any means it, of course, must have been pushed into the local elements by processes more or less mechanical. Indeed, it was guessed that a "frame up" had occasioned it, a frame up designed to land both of the next conventions way up at the top edge of the map at Niagara with its raw October breezes and its "Ancient Order of Hotel Accommodations" of antique and forgotten vintage and the frame up for the burg developed into a good stiff one.

* * *

Possibly it was just a little bit too stiff for the boys to stand for unanimously. Anyway, the boys from the south, those real warm ones, those "Johnny on the spot" ones, who always have something up their sleeves got into quick action and handed the Niagara propositon a diplomatic wallop that left no other place in the wide wide world to hold the two big hardware conventions in 1908, except Memphis, Tenn., and they made 'em like it. How did they do it? Don't ask me. I'm just smilng serenely and sawing wood industriously, but religiously just as all the other red and blue ribboned hardware delegates are.].

News Siftings

It is reported that the Collins & Burgie Co.'s stove manufacturing plant at Marengo, Ill., which was entirely destroyed by fire on October 5, is to be rebuilt.

The Stanford Steel Range Co., of Sheffield, Ala., is looking the field over in contemplation of establishing a plant for the manufacture of their steel ranges at Birmingham, Ala.

The Queen City Foundry Co., Ltd., of Toronto, Ont., has been incorporated with a capital of $40,000. The company proposes to manufacture boilers, engines, stoves, ranges and hardware specialties.

The Strand Heater Co., of Cleveland, O., was recently incorporated with a capital stock of $10,000. The plant has already been arranged and the work begun. The company will manufacture natural gas heaters.

We learn from a Knoxville, Tennessee, paper that the Lonsdale Foundry Company of Knoxville, which was established a year ago for the purpose of manufacturing stoves together with other foundry work, has outgrown its original plant, and by additions thereto has more than doubled its original capacity.

On the morning of October 27th the stove manufacturing plant of the Excelsior Stove Works of Quincy,. Ill., was involved in a somewhat destructive fire, in which their reported loss is stated at from $15,000 to $18,000. The plant is amply insured, the amount of $225,000 in fire insurance being carried.

The matter of the selection of a trustee for the creditors of the Leonard Stove Company of Bowling Green, O., is still pending before the referee. The first meeting of the creditors was held on Saturday, October 26, but nothing definite was done and an adjournment was taken until the following Tuesday when the matter was further adjourned until a later date.

S. V. Reeves, stove repair manufacturer, of Philadelphia, Pennsylvania, has changed his quarters to a much better building where much more room is had and infinitely better facilities are provided for handling his rapidly growing business. The new premises just across the way on North Second street from where the former location was, the new number being 45 North Second street. A strong feature of Mr. Reeves' business in original and other excellent stove repairs and another is in a complete line of the Leibrandt & McDowell stoves and ranges.

Reports that went out relating to a fire in the plant of the Stove & Range Co. of Pittsburg, in Allegheny, Pa., on October 20, stating a loss of $50,000, appear to have been very much exaggerated. The stables, pattern shop and steel furnace departments of the works were destroyed, but the facilities of the plant in a general way will permit very early resumption of business in the lines affected. The company has a sufficiency of goods to take care of all of its requirements until re-establishment has been made, and as a consequence there will be no delay in filling orders for any goods that may be received. The loss is estimated at not above $30,000 to $35,000, all of which was amply covered by insurance.

"Graphite," a bright and interesting publication by the Joseph Dixon Crucible Company of Jersey City, New Jersey, is an exceedingly attractive number. In its text there are to be found an extended illustrated article on "Pressure Reducing Valves," which is running as a serial: an excellently written and very nicely illustrated article on "Crucible Tongs" and another on "Power Transmission by Manila Fibre Rope" are set forth in this issue. In addition to this the publication is replete with bright and interesting matter, nearly all of which relates to the subject to which the publication is devoted.

The Weller Pattern Company of Quincy, Illinois, have issued a general letter of announcement calling attention to their excellent facilities for producing high grade stove patterns of all kinds of stoves and ranges, and invite stove and other people to take up with them such advance matters as are under consideration relating to pattern work of all kinds. They state in the announcement that they are prepared to produce the most artistic patterns both in wood and iron ready for the sand and will furnish exclusive original designs for stoves, ranges and heaters of every description, 520 to 526 South Fourth street, Quincy, Illinois.

A meeting of the Stove Salesmen's Association of Pennsylvania was held on Friday, October 18, at the office of the United Stove Repair Company of Philadelphia. J. R. Witherspoon, president, in the chair. After the opening perliminaries the following named stove salesmen were proposed for membership and unanimously admitted. W. O. A. Roberts, Norman H. Meyer, both representing Roberts, Wimer & Co., of Quakertown, Pa.; Harry A. Miller, representing the Estate of P. D. Beckwith, Dowagiac, Mich.; John S. Conrad, representing March-Brownback Stove Co., Pottstown, Pa.; G. D. Gerris, representing Grander Stove Co., Royersford, Pa.; U. H. Evans, representing the Pecord Stove Cement Co. of Philadelphia, Pa. The meeting arranged to hold an annual banquet of the association on December 19. The following committee on arrangements was appointed: Harry Borzell, W. F. Halbicht, Walter T. Hallowell, J. R. Witherspoon, which is to report on plans at the next monthly meeting. Following a brief discussion of the forthcoming banquet the meeting adjourned.

OUR DRUMMER SANTA CLAUS EDITION.

"Our Drummer," which is the huge catalogue issued by Butler Brothers of Chicago, is just out again and this time it appears in brilliant attire as the "Santa Claus" edition. "Our Drummer" is always interesting and this issue is especially so, inasmuch as it relates so very closely to the coming holiday season and to the goods that are so much in demand in that season, in addition to the regular assortment of goods for general and regular demand. The holiday feature of the work is very extensive in its scope and covers a wide range of articles that are genuine holiday offerings adaptable to all classes of retail dealers' businesses. This department is treated nicely in bright colors and all of the

various articles enumerated are shown by excellent engravings accompanied by concise descriptions and plainly printed prices, and moreover they are grouped in various assortments that apply to various branches of retail merchandising, as is also the entire huge catalogue for that matter. Butler Brothers offer in their plan a most convenient form of merchandising, as the index to the work and a follow-up glance indicates in illustrated and descriptive form absolutely all that a merchant needs to know when the high and honorable character of the company is taken into account. "Our Drummer" of the Santa Claus edition contains 500 large, compact, cleanly printed and profusely illustrated pages, and is a wonderful production. Butler Brothers, it should be understood, do a strictly wholesale business and sell to retail merchants exclusively, and they sell all kinds of things to all classes of merchants by a plan which eliminates most of the selling costs and naturally prices are governed accordingly.

Butler Brothers, Randolph street bridge, Chicago, Illinois. In writing, kindly mention THE AMERICAN ARTISAN.

CINDERELLA BASE BURNERS.

Cinderella base burners are being made prominent this season through good advertising matter and carefully prepared descriptive matter in which it is stated

Cinderella Base Burner.

that the back of Cinderella base burners of any style carry more than nine square feet of radiating surface between the skirting and the heat collar. Among the features of Cinderella base burners are these: The flue construction is so arranged that the products of combustion are divided, and pass down two flues, one at each back corner, which distributes the heat to the extreme corners of the stove; it then travels along both sides of the bottom to the front, which distributes it equally over all parts of the bottom, making all the lower part of the stove a direct radiating surface. The heat then passes back through the center flue in the bottom, and out the large ascending flue to the smoke pipe. The construction affords the greatest heating surface made in any base burner with same size fire pots. The hot air flues are especially large and effective, and are located between the descending and ascending flues, and are heated by direct radiation from the side of both descending flues, and both sides of the ascending flue. The cold air is taken from the floor, carried along the bottom under the base to the circulating flues, and is delivered through a pipe collar at the top, from which point it may be conducted to rooms above.

The magazine can be readily removed, and is provided with double covers, preventing escape of gas and protecting the nickel on the swing cover. The gas cover is automatically raised by the swing cover. The fire pot is of good weight, with a view to greater durability, and is easily removed through the large front doors. The grate is the Improved Duplex, made extra heavy, and is provided with outside shaking ring and can be readily removed through the ash pit door. The ash pit is extra large and deep, which permits the use of a good sized ash pan. It is also provided with a dust flue.

vided with a dust flue. The Cinderella line is offered by The Stove & Range Co. of Pittsburgh, at Pittsburgh. Catalogue on application. In writing kindly mention THE AMERICAN ARTISAN.

ONTARIO'S RICH MICA MINE.

Consul H. D. Van Sant reports that at Sydenham, Ontario, sixteen miles from Kingston, is located the largest mica mine in the world. The product is mostly amber mica, with some silver amber, the highest quality mined. The mine is one mile from the upper end of Sydenham Lake, and the mica is transported in bulk from the mine by barge to the railroad at Sydenham, where it is shipped to Ottawa for trimming for the market. From Ottawa it is exported to the United States and other points. This valuable mine is owned and worked by Americans, and the output is almost entirely taken by one of the largest American electric companies.

A STRANGE COFFIN.

The strangest coffin of which there is record, perhaps, is one for which the British war department is responsible. The story is that a workman engaged in casting metal for the manufacture of ordnance in the Woolwich arsenal, lost his balance and fell into a caldron containing twelve tons of molten metal. The metal was at white heat, and the man's body was utterly consumed in less time than it takes to tell about it. The war department authorities held a conference and decided not to profane the dead by using the metal in the manufacture of ordnance, and the mass of metal was actually buried, and a Church of England clergyman read the services for the dead over it.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 36 to 41 inclusive.

Wilson Bros. are new hardware dealers at Cresbard, S. D.

Payton & Balby are new hardware and stove dealers at Mena, Ark.

M. Nelson & Co. have opened a new hardware store at Quinn, S. D.

Roy Seney has started a new hardware business at Mason City, Ia.

A. J. Wilson has opened a new stock of stoves, etc., at Stockham, Nebr.

Tomlinson Bros. have started a new stove and hardware store in Garfield, Kans.

J. C. Woolridge has opened a new hardware and stove business at Roe, Texas.

M. D. Gouder, of Kinsley, Kans, has disposed of his hardware business to I. R. Weir.

The Union Mercantile Co. has opened up a new line of hardware and stoves at Knobeh, Ark.

Robinson Bros. have succeeded to the hardware business of Robinson & Terrall at Reinbeck, Ia.

Westley Sanders, of Atwater, Minn., is about to open a new hardware store at Rendville, Minn.

Wood Bros. have sold a half interest in their hardware business at Wilmot, S. D., to A. Hevener.

Johnson & Feiring have sold their stove and hardware business at Galesville, Wis., to Kidder & Smithe.

The Wilcox Hardware Company, of Camden, Ala., was recently incorporated with a capital stock of $2,500.

The Hardy Hardware Company, of Portales, N. M., has in process of erection a new building for its business.

Smith & Lynch, of South Auburn, Nebr., are successors to C. J. Lynch in the hardware business at that point.

The hardware store of Ed Faley at Vernon Center, Minn., has, so it is reported, been closed by the sheriff recently.

What is stated to be an incendiary fire recently destroyed the hardware store and their premises at Colchester, Ill.

The factory of the London Fence Co., of Portage La Prairie, Manitoba, which was destroyed by fire recently, will be rebuilt.

The Knox Hardware Co., of Knox, N. D., have removed their hardware stock to Tioga, N. D., where the business is to be resumed.

The Niagara Wire Cloth Co., of Buffalo, N. Y., is materially enlarging the capacity of its wire weaving and galvanizing departments.

The J. I. Gray Roofing & Mfg. Company has been incorporated with a capital stock of $10,000 to do business at Oklahoma City, Okla.

Stanis-Keller Hardware Company, which recently took over the business of the Hunt Hardware Company of Colville, Wash., will conduct a wholesale and retail business in shelf and heavy hardware, stoves, etc.

The Miles City (Mont.) Lumber Company have torn out a portion of their lumber sheds and are erecting a building for hardware purposes.

Denis & Jetka, hardware dealers of Little Falls, Minn., have dissolved. Mr. Michael Denis will succeed to the business in his own name.

The Calnan Hardware Store of Calnan, Iowa, was damaged by fire on October 21st. The loss is stated to be $700, which is covered by insurance.

The Sanitary Can Company of Niagara Falls, Ont., has been incorporated with a capital of $100,000 to manufacture tin cans and other specialties.

A large fire in Brooklyn, N. Y., on October 22 involved the plant of the American Safety Razor Company to the extent of considerable damage.

C. Morgan Sons, of Wilkes-Barre, Pa., has sold out their hardware store to the Coursen Hardware Company, of which Frank L. Coursen is manager.

Burglars got into the McIntosh Hardware Store, at Whitefish, Montana, on October 19th, and carried off a variety of property, valued at about $100.

The Rosnick Wrench Corporation at Clintwood, Va., has been organized with a capital stock of $20,000. The product will be a recently patented wrench.

Guy Stipe has rented a storeroom at Clarinda, Iowa, and will put in a good stock of hardware. There is no other hardware stock or establishment in the town.

John F. Irby & Co., of Ritzville, Wash., have incorporated their business with a capital of $50,000 to conduct a hardware, stove and sporting goods business.

The Parrish-McDonald Implement Co. has bought out and is now operating the hardware business heretofore had by the Parrish-Heldinger Implement Co., of Osceola, Ia.

Jack W. Neal, of San Antonio, Tex., has taken his brother into partnership in his hardware and implement business. The new style of the concern is Jack W. Neal & Bro.

H. D. Huff & Company, hardware dealers of Troy, New York, are reported to have filed a petition in bankruptcy, and that Philip M. Wales has been appointed receiver.

The Carolus Mfg. Company of Sterling, Ill., is a newly organized concern which has already begun operations in the manufacture of a patented nut splitter and bolt clipper.

The Michigan Screw Co., of Lansing, Mich., has been compelled to double its capacity. The company, which has been in operation nearly a year, has paid a 6 per cent dividend.

The new plant of the Canadian Chain Company, at Sarnia, Ont., is rapidly nearing completion. It is anticipated that the plant will be in operation before the middle of November.

We are advised that the Southern Saw Works of Atlanta, Georgia, has arranged to market its saw products in foreign countries. Negotiations are now in progress for the establishment of an agency in St. Petersburg, Russia, and correspondence is being con-

ducted with reference to the establishment of other foreign branches.

The Wheeling Flexible Ladder Co., of Wheeling, W. Va., has recently been incorporated. It is capitalized at $100,000 and will manufacture flexible iron ladders and fire escapes.

The Baltimore Enamel & Novelty Co., of Baltimore, Md., has awarded a contract for the construction of a 64x122 feet addition to its plant. The building will be a one-story structure.

The Atlas Drop Forge Co., of Lansing, Mich., is said to be working overtime in order to keep up with the demand for its goods. This is one of the recently acquired industries of Lansing, Mich.

The Sterling Standard, of Sterling, Illinois, had in its issue of October 22d a complimentary illustrated notice relating to Mr. Chas. A. Davis, a prominent hardware merchant of the city named.

The Raymond Mfg. Co., of Corry, Pa., manufacturers of wire specialties, has practically completed an addition to its plant. The new premises, 16x100 feet, are to be used for tempering and nickeling.

The business of the hardware firm of H. Nelson & Son, at Pittsburg, Kansas, is being closed out by regular sale. Mr. Nelson, Sr., will engage in farming, and the son will engage in the real estate business.

The Jones Hardware Company, of Austin, Texas, has perfected arrangements to increase its capital. The company's headquarters are in New Orleans, La., and it manages stores in several parts of the state.

The next annual convention of the North Dakota Retail Hardware Dealers' Association will be held in Fargo, N. D., on January 28-29-30, 1908. The convention will be held in the Commercial Club House.

The Griffin Mfg Co., of Erie, Pa., has in process of construction an addition to its plant, which was but recently completed. The company's products are steel strap T and butt hinges and other hardware specialties.

H. M. Price & Co., Mobile, Ala., advise us by letter that a fire occurred in their warehouse on October 14, in which their hardware stock was totally destroyed with a loss of about $700, which was insured for $500.

An addition will be built to the factory premises of the Chas. Parker Co., of Meriden, Conn., manufacturers of vises, hardware specialties, lamps, etc. The addition will be 60x94 feet and will be of brick construction.

The Clem Hardware Company, of Monroeville, Ind., has purchased the hardware stock and fixtures of Shifferly Bros. The stock has been moved to a newly built store building and the business will be considerably enlarged.

The Ornamental Wire & Iron Company of St. Louis, Mo., have in contemplation the erection of a one-story building of brick and stone to be 87x80 feet in size. We are advised that the plans have already been drawn.

F. E. Muzzy, vice-president of the Stevens Arms and Tool Company, of Chicopee, Mass., is about to make an extensive trip for recreation and pleasure. Mr. Muzzy has been very active in developing the rapidly increasing business of the Stevens products, and on account of overwork has been compelled to take a brief vacation. His many friends in the trade, and they are legion, will accord him a hearty welcome when he resumes his work in behalf of the Stevens Company.

It is stated that the West Mfg. Company of Columbus, Ohio, has under consideration the matter of increasing its capital stock. The company is now capitalized at $20,000, and it is contemplating an increase thereof to $50,000.

The King-Weder Co., of Richmond, Va., has been incorporated with a capital stock of $50,000. The company will manufacture agricultural tools. The officers are T. J. King, president, and Warner Moore, secretary-treasurer.

The Richards Mfg. Co., of Aurora, Ill., is manufacturing a line of fire door fixtures that is attracting much attention. The company's goods along the lines here indicated have been approved by the National Board of Underwriters.

Austin & Craw of South Norwalk, Conn., manufacturers of toys, novelties and household specialties, have in contemplation the building of a new factory, 40x100 feet, of a two-story plant, to replace the building recently destroyed by fire.

Edwin Cutler, hardware dealer of Des Moines, Iowa, has almost completed the erection of a new store building, which is now nearly completed. His hardware stock will be moved into the premises as soon as they are ready for occupancy.

Wm. Eichenberry & Co., vehicle dealers of Russiaville, Ind., have bought the hardware business of the McCoy Bros., at Marion, Ind., and will take possession of the business at once. The two stocks will be carried under one business management.

The Conconully Furnace & Hardware Co., of Conconully, Wash., has been incorporated with a capital stock of $3,000. The company will operate a retail furniture and hardware business, and the stock will include stoves and the usual hardware line.

As a show window attraction, the Albany Hardware and Iron Company, of Albany, New York, have been giving an exhibition of incandescent mantle making. The exhibition has proved quite an interesting one, and has attracted very much attention.

The second annual convention of the Wisconsin Retail Implement & Vehicle Dealers' Association will be held at Milwaukee at the Plankinton House on December 11-13. This association is the outgrowth of the Wisconsin Retail Hardware Association.

It is reported that Geo. S. Brushwood of Van Buren, Ohio, has filed a petition in voluntary bankruptcy in the United States bankruptcy court, at Toledo, Ohio. Mr. Brushwood has conducted a hardware business at Van Buren for the past five years.

The Washington Hardware & Implement Dealers' Mutual Fire Insurance Association of Spokane, Washington, has issued a statement of its condition on October 5, 1907. The statement shows that on January 1 of the current year the insurance in force amounted to $431,850, while on October 3 (the date of the report) the amount had increased to $649,750. The ra-

tio of expenses to premiums is reported at 10.8 per cent. The ratio of loss to premium is 15 per cent. The premium return to policy holders during 1907 is 25 per cent.

The W. W. Stokes Company at Anna, Illinois, has been incorporated with a capital stock of $15,000. The business of the company will run to hardware, implements, blacksmithing, etc. The incorporators are A. Ney Sessions, Harry W. Rendelman and Bessie Postlewaite.

The Up-To-Date Mfg. Co., Terre Haute, Ind., has recently completed a two-story brick addition to its plant, 62x100 feet in size. The company manufactures wire fencing and general ornamental iron and wire work. The addition practically doubles the size of the plant.

Chas. Swisher, hardware merchant of Francisville, Indiana, is closing out his hardware stock by regular sale. His retirement from the hardware trade comes about through his having been elected sheriff of Plaski county, Indiana, to which office he will devote his entire attention.

The Novelty Enameling Co., of Cleveland, O., was recently incorporated with a capital stock of $25,000. The company has leased the old Truss & Cable Fence Co.'s plant and will remodel it into a modern enameling plant. An addition will be built in which will be installed the office.

The Western Arms Company of Salt Lake City, Utah, has disposed of its business to parties who will continue the same without interruption. We are advised that the transfer was made for purely business reasons, and that there will be no interruption in the conduct of the business.

Mr. Geo. H. Sargent, recently elected to the presidency of Sargent & Co., New Haven, Conn., and New York City, has been elected to the presidency of the board of trustees of Leicester Academy at Leicester, Mass. Mr. Sargent, it is said, was prepared for college himself at this institution.

Mr. E. E. Boynton and Mr. J. F. Barnes, representing the C. T. Ham Manufacturing Company of Rochester, New York, were much sought for people at Atlantic City during the recent hardware conventions there, chiefly because they and the Rochester house they represented were of the popular kind, and incidentally because they were distributing as souvenirs one of the prettiest and most desirable tokens seen at the conventions in the form of Gem Cold Blast Tubular Lanterns of the Ham type, brilliantly done in brilliant brass. As souvenirs they were unusually costly offerings.

The Waterloo Register Co., of Waterloo, Iowa, is meeting with most gratifying success with their very attractive line of hot air furnace registers. During the year past the company has very greatly increased its business along all lines and the line has been increased accordingly. Besides these "Waterloo" and "Favorite" patterns of side-wall registers they are now offering floor registers and faces, No-Rivet Damper Clips and an excellent general assortment of furnace supplies. Their "Waterloo" side wall register is unique and desirable for the reason that it embodies in slide or drawer form a capacious water pan for humidizing the hot air current.

HARDWARE MEN IN NEW YORK.

An unusually large number of prominent hardware people were in New York City during the week following the Atlantic City conventions, a large proportion of whom had come up from Atlantic City. Individually and in small parties many of them made trips to New Britain and Hartford, Conn., and to Newark, N. J., and other prominent hardware manufacturing centers.

Mr. R. F. Lund of the Dover Mfg. Co. of Canal Dover, O., arrived in New York from Europe on Tuesday on the Steamship Minnehaha and in honor of his arrival, Mr. Chas. T. Johnson, president of the Dover Mfg. Company, tendered an entertainment in the form of a theater party on Tuesday evening, at the Stuyvesant Theater, where David Warfield is presenting "A Grand Army Man."

The invited party which filled four reserved boxes was as follows: Mr. R. F. Lund, of Dover Mfg. Co.; Mr. Chas. T. Johnson, president of Dover Mfg. Co.; Mr. C. A. Brennen, of Dover Mfg. Co.; Mr. N. A. Gladding, of E. C. Atkins & Co., Indianapolis; Mrs. H. E. Lenedelph, of New York City; Mr. Geo. T. Bailey, of Oliver Iron & Steel Co., Pittsburgh; Mr. John G. Rollins of Rollins & Co., New York City; Mr. Wm. Oddie, of Cleveland, O.; Mr. and Mrs. H. H. Roberts, of Philadelphia; Mr. John H. Decker, of New York City; Mr. E. H. Luetkemeyer, of Cleveland, O.; Daniel Stern, of Chicago; W. H. "Pop" Bennett, of Lawson Mfg. Co., Chicago; Wm. T. Gormley, of Bullard & Gormley, Chicago; Chas. M. Hurst, of Morehouse, Wells & Co., Decatur, Ill.; Mr. and Mrs. J. A. Warner, Wyeth Hardware Co., St. Joseph, Mo.; Mr. J. H. Jantz, of American Wringer Co., New York City; and Mr. Rudolf Tenk, of Tenk Hardware Co., Quincy, Ill.

A VANISHED HARDWARE MANUFACTURER.

A shroud of mystery envelopes the name and the being of a one-time prosperous hardware manufacturer of Chicago. The person is Mr. J. F. Wollensack who was well known and well regarded in Chicago hardware circles generally and who became later even more widely known as the inventor and manufacturer of Wollensack's transom lock and lifter, which has for many years been in use almost to the exclusion of all other devices of its kind all over the United States. The Chicago daily newspapers are now engaged in discussing a peculiar phase of his character and habits without throwing much or any light upon the mystery which surrounds his name and doings, the discussion having been brought about by an application to the probate court of Cook county, Illinois, to have him declared legally dead. Some years ago, prior to 1899, it seems, Mr. Wollensack, rich, prosperous and in high standing in the Chicago business community, suddenly vanished, and as reported has been heard from but twice, and not at all for

some seven years past. Apparently he was simply swallowed up and gone and that seemingly comprised the entire story. He had been to an extent estranged from his family of a wife and three sons for a time immediately preceding his departure, and later his sons changed their surnames to Wallace, but for what reasons the discussing papers do not state. One of them, using the name W. F. Wallace, was for a time in the employ of THE AMERICAN ARTISAN, and later was connected with the Retail Hardware Bulletin of Argos, Indiana. In the proceedings before the probate court of Cook county Wollensack was declared legally dead and arrangements were made, it is said, for a legal division of his fortune, which is said to amount to somewhere in the neighborhood of a half a million of dollars. It is a very strange case, and one to which, as far as we are aware, no solution whatever has been offered.

OBITUARY.

Alexander Colquhoun.

Alexander Colquhoun, a thoroughly well known and highly regarded figure in the stove trade of Philadelphia, Pa., died in Washington, D. C., suddenly on October 18th from a stroke of apoplexy. At the time he was attending the convention of the Gas Stove Manufacturers in that city. Mr. Colquhoun has for many years been prominent in the stove affairs of the Second street district in Philadelphia, and has during the time been identified with the business of Roberts, Winner & Company of Quakertown, Pa., with whom he was connected for about ten years. At the time of his demise, however, he was connected with the gas stove department of Isaac A. Sheppard & Sons Company of Philadelphia.

David G. Cooper.

David G. Cooper of Terryville, Conn., died at his home in Terryville on October 18th, at the advanced age of seventy-seven years. Mr. Cooper had the distinction of being the inventor of the oven door thermometer, which is so generally used in stove manufacture at the present time. He was a native of North Berwick, N. H. At an early period in life he was interested in ventures in Cuba and also in Chili, where he was engaged in assaying and engineering operations. Declining health induced him to return to his native country, and it was during a term of ill health, and consequent idleness, that his idea of the oven thermometer was developed. Mr. Cooper leaves no relativs closer than cousins and nieces. The will left by him made provision for the continuation of the oven thermometer manufacturing business under the title of the Cooper Oven Thermometer Company.

August Leauty.

August Leauty, aged sixty-two, and for nearly thirty years a most widely known dealer in guns and accessories, died in Indianapolis, Ind., at his home, on October 22d. His death resulted from a complication of illnesses, for which he had been suffering for some time. Mr. Leauty leaves a widow and two brothers, and a sister, all of whom reside in Indianapolis.

PHILADELPHIA LAWN MOWERS.

Philadelphia Lawn Mowers are most brilliantly and effectively catalogued in a new 1907 catalogue whose pages run 10½ x 7½ inches in size, with one large lawn mower illustration shown upon each page. These pictures are thoroughly excellent. In the first place they are accurate in perspective and proportion; they are large enough to afford a correct observation and understanding of each part and each item of the operating mechanism, and moreover they are splendidly printed in the exact colors that apply to the finished operating machines so that no errors may occur in selections thereby from the printed catalogue and the excellent descriptive matter and prices that accompany each illustration. The general text of the work is well written and carefully arranged, and its details are all most acceptable. The illustrations of the catalogue include a good cut of the Philadelphia plant and large naturally colored ones of the entire line of hand and horse mowers, grass collectors and fountain lawn sprinklers. A very excellent line is shown. The Philadelphia Lawn Mower Co., 3101-3109 Chestnut street, Philadelphia, Pennsylvania. When writing, kindly mention THE AMERICAN ARTISAN.

THE SAFETY DOOR HANGER.

The Safety Door Hanger, otherwise known as the World's Best Tubular Track Door Hanger, is now made in a new design by the manufacturers, the Safety Door Hanger Company of Ashland, Ohio.

The diameter of the wheel has been increased to 2¼ inches, making it, it is claimed, the easiest running hanger on the market. It is equipped with a supplementary wheel which prevents derailment. The frame is made of best grade malleable iron and the hanger is finished in aluminum. The track brackets are slidable and may be placed at any point desired.

Each pair of Safety Hangers comes packed in an individual box, complete with bolts. The manufacturers announce that they do not sell to catalogue houses and invite hardware dealers to write for prices, etc. When writing kindly mention THE AMERICAN ARTISAN.

YEAR'S MOVEMENT IN COPPER.

The value of the copper, exclusive of ores and matte, moved into and from the United States in the fiscal year ended June 30 reached the record total of $128,137,370, as compared with $103,038,932 in the previous year. The prominent feature of the year's movement was that the value of copper exported, amounting to $88,791,225, brought that commodity second only to steel and iron shipments, the leaders—exceeding oil and cotton shipments by considerable margins. Another important point was that the volume of receipts of the metal was the largest in the history of the trade or country, amounting to 198,442,715 pounds, with a value of $39,346,145.

The average price of the copper exported for the

fiscal year was 21.04 cents a pound; the average for imports was 19.8 cents a pound.

A three years' comparison of the movement and values of copper is shown below:

	1907 (lbs.)	1906 (lbs.)	1905 (lbs.)
Exports	414,046,463	464,562,641	591,362,270
Imports	198,442,715	171,001,957	146,303,305
Total	612,489,178	635,564,598	737,665,595
Value—			
Receipts	$39,346,145	$25,764,545	$19,841,567
Shipments	88,791,225	77,274,387	81,795,226
Total val.	$128,137,370	$103,038,932	$101,636,793

The falling off in exports of copper from this country during the year was most noticeable in the shipments to China, which fell from 70,000,000 pounds and 24,000,000 pounds, one and two years, respectively, to about 1,800,000 pounds. The Netherlands also took considerably less, dropping to 135,000,000 pounds from 141,000,000 and 147,000,000 pounds one and two years previously.—The Commercial West.

A PAINT CATECHISM.

COMPILED BY G. B. HECKEL.

No. 7.

With this issue of THE AMERICAN ARTISAN "A Paint Catechism" is completed insofar as its numerical features are concerned. Following this, however, our next succeeding issue will be devoted to a careful summary of the sections heretofore published. In this summary, the matters heretofore considered are carried along in groups and classes in a manner which demonstrates the relation of each of the items to the others. The entire matter of the catechism will be closed in the next section published.

81. *What is a properly prepared paint?*

A paint in which the ingredients are selected with due regard to their physical and chemical characteristics and thoroughly amalgamated into a homogeneous mixture, extremely fine grinding of the pigments being also essential.

82. *What is meant by the proper application of paint to a surface in fit condition for painting?*

The "proper application of paint" has reference to the consistency of the paint when applied, to the method of application and to the time allowed to elapse between coats. The fitness of the surface for painting refers to its cleanliness, the nature as well as the condition of the wood, and the state of the weather at the time of painting.

83. *How should the consistency of the paint be varied for different surfaces?*

The painter should understand these requirements. The priming coat, being the one on which the adhesion of the entire paint film depends, should be most carefully considered. It should be sufficiently liquid to penetrate every pore and irregularity of the entire surface, carrying with it particles of the pigment; but this fluidity must not be obtained at the cost of the future strength of the dried film. For the priming coat it is customary to add a quantity of oil and some turpentine or benzine. It is easy to overdo both. Only enough of the volatile thinner should be used to avoid a high gloss, to which subsequent coats will not readily adhere. Hard, unabsorbent woods require a thicker priming coat than spongy woods, such as poplar, soft pine, etc. Resinous woods, like yellow pine again, require special treatment—a preliminary varnishing of knots and resinous spots with shellac, and subsequent primnig with a fluid priming coat containing an excess of turpentine.

The second coat, which in many instances is also the finishing coat, should be tempered accordingly. If there are to be three coats, the paint should be slightly reduced with turpentine or benzine, so as to promote amalgamation with the priming coat, and to reduce the surface gloss. If it is to be the finishing coat, prepared paint of the average consistency can be used without reduction, but a very little turpentine is sometimes desirable to assist penetration and adhesion.

The third or finishing coat should usually be employed as it comes from the can. In the case of all coats, thorough, hard brushing is essential, and a round brush is always preferable to a flat brush. The failure of paint is frequently due to insufficient "elbow grease" with the brush.

Every coat of paint should be completely dry throughout before the next coat is applied; but it is a mistake to allow a priming coat to "weather" and become weakened before painting is continued.

Too much drier or japan or cheap resin japans are at the bottom of many paint failures. The manufacturers of a scienitfically prepared paint will introduce the proper kind and quantity of driers into his formula, and none should be added in use.

84. *How is a fit condition of surface obtained?*

First, by delaying the application of the priming coat until the wood is thoroughly seasoned, unless seasoning has been properly attended to in the lumber; secondly, by seeing that the plaster on the inside of the building is completely dry before painting is begun on the outside. A new house should have been heated some weeks before it is painted. In an old house leaking spouts, etc., should be repaired and the adjacent wood allowed to dry thoroughly before repainting. Thirdly, by avoiding the application of paint in moist weather or when the atmospheric moisture is high. Fourthly, by selecting a dry, mild season, as late spring or early fall, rather than a cold or hot season, as winter or mid summer, for the work. Fifthly, by seeing that sappy or resinous spots in new lumber are properly treated before painting. Sixthly, by due care on old work that all loose paint and dust are removed by scraping, sand papering, wire brushing, dusting or, if necessary, burning, before new paint is applied.

As a rule, it should always be remembered that two thin coats thoroughly brushed out are better in most cases than one thick coat, and that repainting should never be delayed until the undercoats begin to loosen seriously.

85. *Can the Ordinary Property Owner Obtain Satisfactory Results with Prepared Paint by applying it himself?*

Only when conditions are favorable. In any case he should study carefully the directions on the can, and unless they are found to apply to his particular job, should consult either the manufacturer or a practical painter for fuller advice.

86. *Will a Chemical Analysis Determine the Quality of a Paint?*

No. To the expert paint chemist it will indicate whether the paint is scientifically compounded or not; but of the method of preparation, which is quite as important as composition, it will tell nothing. Only a thorough and exhaustive physical examination will tell this.

87. *Will the Blow-pipe Determine whether White Lead is good or bad?*

No. It will tell whether or not the material is a pure lead compound, but it will reveal nothing regarding its qualities as paint. The soluble salts of lead, such as the acetate or the nitrate, will yield metallic lead with the blow pipe more readily than will the carbonate, but when found in white lead they are very detrimental. On the other hand, the more stable white compounds of lead, such as the oxy-sulphate, though they may be pure lead compounds, will not reduce before the blow pipe without the use of a flux, except in the hands of a skilled operator.

(To be continued.)

The Two Harbors Hardware Company of Two Harbors, Minnesota, has filed articles for incorporation with a capital stock of $25,000, which is divided into 1,000 shares at $25 each. The limit of indebtedness is fixed at $7,500. The incorporators are C. W. Shoop, A. L. Johnson, A. J. Giroux, Alex. Holliday and B. A. Rude.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

It is with the hope that retail hardware dealers who advertise in local mediums may be aided in arranging their copy and in having the publishers who take their patronage turn it out effectively as regards its composition—type work—that this department is conducted and it is to this end solely. It is not always best to leave the arrangement and selection of type to printers. Of course, there are occasions where best results from letting them follow their own judgment, but with a very great majority of rural newspapers no! Study your own advertising. Write your own copy. Select the items to advertise that are likely to awaken the most interest. Give the people plain talk, homely talk if you will; just the kind of talk you would give to any one you were personally seeking to interest. Forget all the big words and bombast you know; talk plainly and briefly. One of the best advertisements the writer ever met with was this for bicycle tires:

"MORGAN & WRIGHT TIRES ARE GOOD TIRES."

* * *

The advertisement of the Shanklin Hardware Company of Frankfort, Ind., is also a really good one. It is a specialized ad, as it calls attention to but one item and does it effectively, but the firm's title takes off

any limitation, as it clearly indicates that oil heaters are merely a feature of the company's stock to which at the time it was desired to invite direct attention. The skeleton picture is well chosen because it is most apt to attract attention and because of its skeleton feature it will always print clear and sharp in ordinary newspaper printing. The text is clean, plain and conversational—good store talk. It tells why the oil stove named is a desirable thing to have and also tells why this particular one is especially desirable because of its peculiar merits and the method of its construction. The matter is well written; the type selection and arrangement are good. A little plainer type for the company's title might have improved the general effect perhaps, something, for example, like that in the opening line, but smaller. However, it is a good advertisement.

* * *

The advertisement of Dees & Spivey, Philadelphia, Miss., tells that they sell hardware and furniture and that their chief business is hardware. We are led to assume that this is the case by the prominence hard-

ware is given in their advertisement here shown, which as it appeared originally, occupied 7¼ inch double column space. The arrangement of the ad is excellent. Both hardware and furniture are made prominent. The little men are stock type that most printing offices have. There is much white space. Look at the advertisement and see how effectively it strengthens the main subject section in the middle of the ad and how very much more interesting it makes the entire work for this reason. The brief talk on both lines is excellent. What would one expect Mr. Dees or Mr. Spivey to say to one on the street? Just what the advertisement says. That is the real essence of advertising. It is put into a newspaper for the purpose of saying the story to a whole lot of people. The advertisement, the type and the printing work are all good.

When you get a new thing, a novelty, and there are many constantly coming on the market, display it where the people can see it, in the window, on a table near the front door, and do not forget the card signs.

Heating and Ventilating

AS TO THE FALKENHAINER PLANS.

To THE AMERICAN ARTISAN:

I was very much interested in the drawing of the Combination Heating System shown on page 31 of your last week's issue (Oct. 19, 1907). I have for many years believed in the advantages accruing from a combination hot air and hot water, and have used it for many years in my own residence.

Mr. Falkenhainer, the party that favored you with the plans, makes a statement, which I think is wrong, when he says "The heat is sent to the radiators at the expense of the hot air system." This is only partly true. A large part of the work done by a Combination, when properly installed, is not at the expense of the hot air system; but a properly constructed water heater when placed in a furnace will so deflect heat to the sides of the furnace, so that the hot air capacity of the furnace is greatly increased thereby, instead of being diminished. We also think that the plans would have been much improved, at a reduced cost, by running the supply and return water pipes on a direct line from the furnace to radiator, same as should be done with hot air. Yours truly, SAM SLOAN.

Editorial Note—The paragraph in Mr. Otto Falkenhainer's article on "A Combination Heating System" to which Sam Sloan refers is here reproduced:

"In connection with the combination systems, there seems to be an impression with the consumer that the heat gained from the radiators is so much heat obtained for nothing. But this is wrong; the heat is sent to the radiators at the expense of the hot air system, and care should be taken not to rob the hot air generator too much."

As the question involved appears to be an open one, THE AMERICAN ARTISAN would be pleased to learn the views of other furnace experts upon the same subject, and to that end invites correspondence.—Editor.

DEFLECTING SIDE-WALL REGISTERS.

Within a few years a new type of side wall register has come into prominence and has found universal favor, solely almost because of the heat deflecting arrangement with which it is provided. In the old practice side wall registers were rarely used when they could be avoided, for the reason that upon rare occasions could the heat current be induced to come out into apartments through it, and because of the injury done to wall decorations when it did. So floor registers and cut carpets prevailed. But since the deflecting plate side wall register came into the market it has become the popular device in nearly all furnace installations. The modern register is a thin, light skeleton affair and is much liked generally. In practice the swinging deflector may be used to shut out the heat current entirely or to admit and shoot it out into a room the entire current, or by proper adjustment the current may be divided to allow entry of part of it ment. It is an excellent device. The Independent Register Co., at Cleveland, Ohio, are devoting much attention to the modern deflecting type of wall register, of which they have numerous patterns of them, all of which are fine trade winners. Besides these they manufacture and carry a very excellent assortment of all types of floor and other registers in excellent designs. A catalogue may be had upon application. Kindly mention THE AMERICAN ARTISAN.

UNITED BUNCH OF SHEEP.

The United Bunch of Sheep, a Wisconsin organization of heating supply house representatives, which was organized at Milwaukee recently, gives promise of vastly enlarging its scope of operations and of becoming a national organization. A bunch has already been organized at Detroit, and Minneapolis representatives in the same line are preparing to organize another one. It is stated that as soon as a number of others take action in the same direction the Milwaukee bunch will call a national convention to be held in Milwaukee. The United Bunch of Sheep has thus far claimed to be a wholly social affair, though much real good to the industry represented has been accomplished by it. A button has been designed for its members to wear, upon which a white sheep over a blue background and the letters U. B. S. is the society's emblem.

PARAGRAPHS.

The Standard Foundry & Mfg. Company of Cleveland, Ohio, has in process of erection an addition of 72x80 feet to its Cleveland plant. The rapid increase in the business of the company has necessitated this addition both for the uses of its register department and its other departments.

The Magee Furnace Co., of Boston, Massachusetts, is utilizing as a poster and with excellent results a design which has been recently displayed in certain of its publicity advertising. The poster relates to the company's six-hole Magee Imperial Range. The poster is a nice, clean, example of good, effective advertising work.

The Practical Heater Co., of Monroe, Mich., was organized quite recently with a capitalization of $100,000, of which $60,000 has already been subscribed. The company will manufacture heaters known in connection with the Johnson Heating & Ventilating System. The Pease Fdy. Co., of Toronto, Canada, controls the Canadian rights.

The Wise Furnace Company of Akron, Ohio, have in preparation a new heater which is designed for house heating systems that will be upon the market shortly. The heater is designed for the use of gas as fuel. It gives promise of being a most excellent success along the lines for which it is intended, and will no doubt have a thoroughly good recognition in natural gas territory.

The Youngstown Furnace and Supply Company are out with a very attractive new catalogue devoted to the Lion, Apex and Bessemer lines of warm air furnaces. In addition to the very excellent illustrations of furnaces in complete form there are also shown a number of sectional illustrations which permit the better understanding of the nature of the furnace than is possible under ordinary conditions.

Tinshop

WHAT A SHEET METAL WORKER SHOULD KNOW.

BY H. E. OSBORNE.

NO. 17.

The Ellipse or Oval.

A perfectly true ellipse can not be drawn with the dividers and two radii. But there are several methods of drawing them in this manner, which so nearly approximates the true ellipse as to answer the purpose for most tin shop work.

A very accurate method, however, is by the string and nail process. Fig. 1 is drawn in this manner.

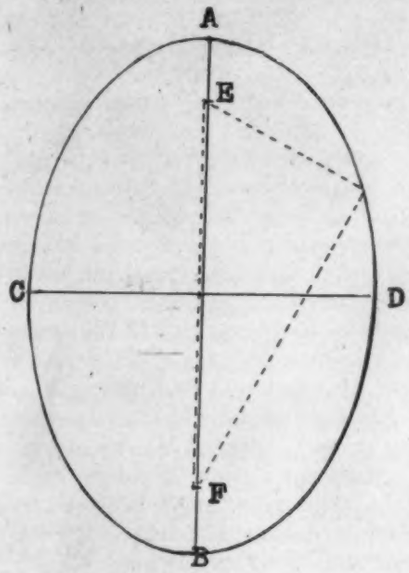


Fig. 1.

Draw A B the length of the major axis and bisecting it at right angles draw C D the length of the minor axis. With C or D as center and one-half the major axis as radius, mark the points E and F on the major axis. Drive nails at E, F and C, and tie a string tightly around the three nails. Remove the nail at C and with a pencil or scriber draw the ellipse, keeping the string tight.

If the pencil is held in an upright position and the string is not allowed to slip up or down on it, and does not stretch more in some directions than in others, the result will be a perfect ellipse. In fact, it is in strict accord with the scientific definition of an ellipse—"A figure bounded by a curved line, every point of which is equally distant from two points within, called foci." In this figure, E and F are the foci, and the distance from any point in the curve to F plus the distance from the same point to E is the same as the combined distances from these two points to any other point in the curve, and is just equal to the length of the major axis.

In Fig. 2 is shown a very near approximate to an ellipse, composed of arcs of circles, having three different radii and eight centers, hence it is called the "eight centered oval."

To draw an oval by this method, draw A B the length of major axis, and bisect it at right angles by C D indefinitely. Mark points O P on C D the length of minor axis.

Now to determine the radii to be used, draw X Y and X Z, Fig. 3, forming any convenient angle at X.

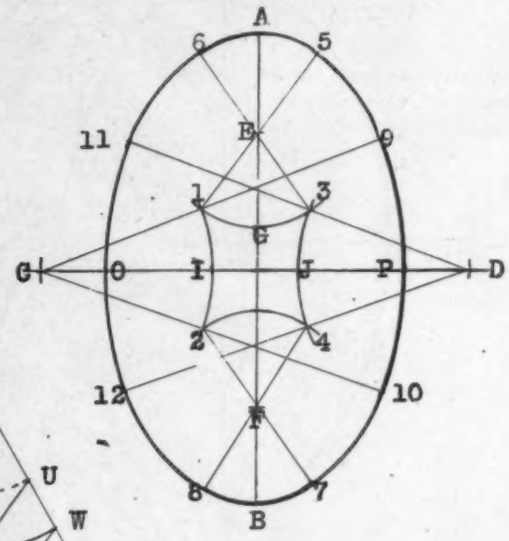


Fig. 2.

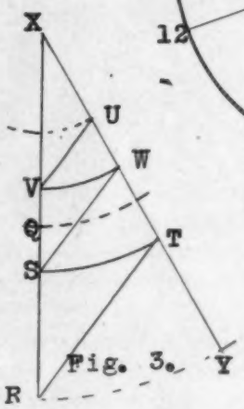


Fig. 3.

With X as center and radius equal to half the short axis strike the arc V W. With same center and radius half the long axis draw the arc S T. Connect W and S, and parallel to W S draw V U and R T. Then X U will be the radius to use for the arcs at the extremities of the major axis, and X R will be the radius for the side arcs at the extremities of the minor axis. For the radius of the arcs to connect the side arcs with the end arcs take the length of the semi-minor axis plus half the difference between the semi-axes, which is (in Fig. 3) the distance X V plus half the distance V S, hence X Q.

On A B of Fig. 2 set off A E and B F, each equal to X U. And A G and B H each equal to X Q. Lay off from O to D and from P to C, each equal to X R and from O to J and P to I each equal to X Q.

With C as center and radius C I draw the arc 1 2, and with D as center and same radius draw the arc 3 4. With E and F as centers and radius E G or F H strike the arcs through G and H intersecting the arcs 1 2 and 3 4 at the points 1 3 and 2 4. Draw a line through E from 1 to 5 equal in length to X Q, and from 3 to 6 same length, and the same through F from 2 to 7 and from 4 to 8.

From C through 1 and 2 draw lines the length of X R, and from D through 3 and 4 same length, ending at 9, 10, 11 and 12.

With C as center and radius C P (or X R) draw the arc 9 10, and with D as center and same radius draw 11 12. With E and F as centers and radius E A (or X U) draw 5 6 and 7 8. Then with 1, 2, 3 and 4 respectively as centers and radius 1 to 5 (or X Q)

draw the four connecting arcs 5 to 9, 7 to 10, 8 to 12 and 6 to 11. This completes the eight centered ellipse, which is a very near approach to the shape of that in Fig. 1, constructed with the string and nails.

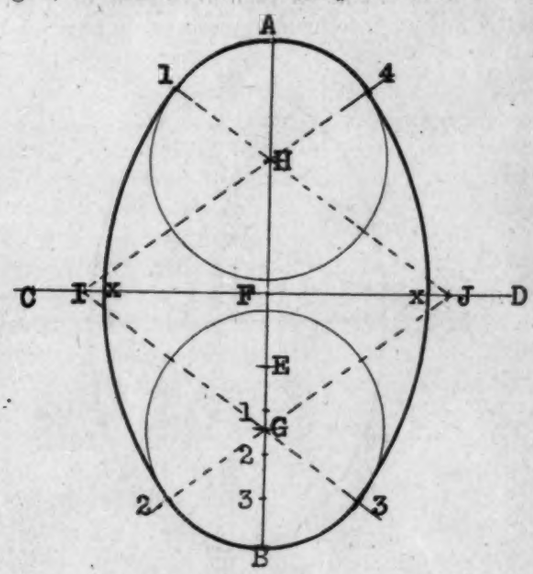


Fig. 4.

Figures 4 and 5 are of the four centered kind, using only two radii. Either of these will answer very well for small articles. Fig. 4 is, however, slightly nearer to the perfect ellipse than Fig. 5.

To draw Fig. 4 make A B the length of major axis, and bisect it with the indefinite line C D at right angles to it on which mark x x length of minor axis. From A set off the length of required minor axis, marked E, and divide E B into 4 equal spaces. With 3 of these spaces, (which is ¾ the difference of the two axes) as radius, and F as center, mark G and H and describe circles with radius A H or B G. Take the distance from F to the nearest edge of one of the

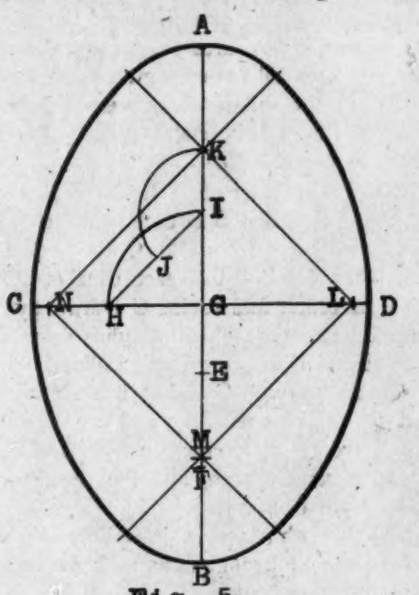


Fig. 5.

circles and set off from x x marking the points I and J. From I and J draw lines through H and G respectively, as J to 1 and 2, and I to 3 and 4.

With I and J as centers and radius I to opposite x draw the arch 3 4. And with J as center and same radius strike the arc 1 2, completing the figure.

For Fig. 5, draw A B and C D, the length and width desired. From A set off the width, A to E, then E B is the difference of the axis. Take half this difference, which is E F, for radius, and with G as center strike the arc H I. Draw the chord H I and bisect it at J. With I as center and radius I J draw the arc J K. With G as center and radius G K mark L, M and N. Draw lines from L and N both ways through K and M, and use K, L, M and N respectively for the centers from which to draw the four arcs to form the oval.

These four figures are all drawn to the same dimensions, i.e, the same lengths of axes, and the different degrees of variation from the nearest perfect form (Fig. 1) are readily detected.

THE CANTON ART METAL CO.

Two very clean and nicely executed envelope size booklets come to us from the Canton Art Metal Company of Canton, Ohio. One of them, as per its title, relates to art, metal interiors. In the text the subject is taken up and skilfully handled in a most direct and interesting manner. Illustrations of paneled ceiling work in embossed sheet metal are shown in both Colonial and Greek designs.

The little booklet entitled "The Leaky Roof Question" relates to metal shingles, which is an important product of the company. The subject, as is the other one referred to, is skilfully handled and the merits of the work strongly adverted to and is made thoroughly distinct. Excellent illustrations are shown throughout the little work in which metal shingles are shown as they relate to residences, cottages, schools, colleges, clubhouses and for other purposes.

Photographic half-tone illustrations are also shown throughout the work which demonstrate a number of designs in which these shingles are made by the company. They are both very nice and interesting little works and may be had upon application by addressing the company as above indicated. When writing, kindly mention THE AMERICAN ARTISAN.

ECLIPSE STOVE PIPE THIMBLES.

Real merit and superior excellence too often remain unsought in what are considered trifling items in building supplies that come from hardware stores. Take for example the item of stove pipe thimbles. Builders too often give but scant attention to comparative merits in such items, but if the dealer will do his honest duty towards his customers by calling to his attention the comparative merits and demerits of an article of this class he will confer a favor upon his patron and also upon the subsequent users of the device. Among the chief faults of common thimbles

Eclipse Open and Close.

are their tendencies to catch the pipe upon their exposed interior rivet heads, to prevent close fittings to the brick holes and to slip out of place in or out the holes on very slight provocation, all of which induces vexation and perhaps profanity.

By correct forming intended to meet and conquer the faults of ordinary thimbles the Eclipse Stove Pipe Thimble, which is herewith illustrated, seems to meet all objections that are urged against all others. They are accurately made by machinery, are much stronger than the riveted contrivance, they fit perfectly, the flange holds them in place firmly, they are perfectly smooth inside, and they are shipped compactly nested, thus saving much in freight and storage room in the store. Instead of being a basement item, the "Eclipse" rightly aspires to a place on the shelves "where moth and rust does not corrupt," etc. What more can one ask? Get them out and show them; they'll sell all right. Stuber & Kuck, at Peoria, Ill., make them, lots of them. Ask them, and kindly mention THE AMERIAN ARTISAN.

A TIN ROOFING PROBLEM.

A tin roofing experience had by W. L. Spear & Co. of Geneva, Neb., which was related in the October 5 issue of THE AMERICAN ARTISAN has awakened a widespread interest among tinners and tin-plate makers. In our issues of October 5 and 12 considerable space was devoted to it and in our issue of October 19 an entire page was devoted to letters upon the subject. The matter is still open for discussion. Following is a brief statement of Spear & Co.'s experience:

Under their direction a tin roof was laid upon a building which is a part of the State Girls' Industrial School in that city. The building contained the boilers, engine room and laundry. The roof was put on during last February. The tin used was American A old style 20-pound coating and was bought from Hibbard, Spencer, Bartlett & Co., of Chicago. It was in good condition when received. Part of the roof was put on in standing seam and part in flat seam. The solder used was National Lead Company's one-half and one-half solder was used as flux. The upper side only was painted after the roof was laid. The roof it replaced was a tin roof, which lasted for a number of years and then went to pieces rapidly. The Spear & Co. roof went to pieces and became worthless in six months. A sample broken out of the roof is practically eaten through from the under side. It is heavily corroded. Large holes have been eaten in it and the edges of the sample crumble at the touch.

THE AMERICAN ARTISAN has submitted the case to expert roofers and tin plate manufacturers for solution. Following are some of the reports and suggestions:

Tilton Bros., Portland, Ore., write:

In reply to yours of October 8th I would say that I have never known of a case of such rapid destruction of a tin roof by corrosion on the under side, where the old tin was removed before the new tin was put on. It is hardly probable that the plates were faulty to any unusual degree, if at all. The sheathing is doubtless in the same condition from shrinkage in which it has been for several years. The tin should have been well painted on the under side in this case.

Experienced metal roofers agree that tin roofing, under certain conditions, is very rapidly destroyed on some kinds of buildings. In this class are laundries, boiler rooms, blacksmith shops, foundries, bakeries, candy factories and others where much steam or gas is allowed to escape into the air of the room and find its way to the roof.

The tin roofing on such buildings can be protected to more or less extent by the following means: Tight ceiling of room to prevent air in room entering attic space—ventilation of upper part of room to outer air—free ventilation to outer air of space between ceiling and roof—tight sheathing—good felt under tin—paint on under side of tin. The omission of one or more of above means reduces the protection afforded the tin to that extent. Free ventilation of the attic space is of the utmost importance in preventing condensation on under surface of tin, thereby removing one of the main causes of corrosion.

To THE AMERICAN ARTISAN:

Referring to extended correspondence in re Spear, Geneva, Nebraska, vs. Rusty Tin Roof, it is a mistake for an "advocate" of tin to dwell on the subject of bad tin. In all cases where tin is to be lauded, blow your horn lustily; but where bad influence against tin is likely to follow a discussion of this kind, break it off, and say little or nothing. The conditions in this case are such that no metal will stand, unless thoroughly protected. Boiler and engine rooms accumulate steam and moisture, and naturally dampness, which will affect metal instantly. Have the roof well sheathed, and well ventilated; put heavy layer of sheathing felt to absorb the moisture; paint the tin well on the underside; give other similar advice as a preventive (an ounce of prevention is worth a dozen columns of advice and agitation in a strictly metal journal, which is no cure), and such other advices briefly. The slag man or composition roofer wants nothing better than a lot of discussion about bad tin. It helps his business, and particularly when appearing in a paper devoted to the interest of good tin roofing. "A word to the wise is sufficient." TINKER.

NOTES AND QUERIES.

GLASS BALLS.

From Electra Lightning Rod Co., Cresco, Iowa.

Where can we buy glass balls?

Ans.—The United States Glass Company, Pittsburg, Pa.

WOOD GRATING.

From O. J. Williams, New Richmond, Wis.

Where can we buy wood grating for cold air return openings?

Ans.—The Wood Ventilator Company, East Palestine, O.

REPAIRS FOR JEWETT & CO.'S STOVES.

Where can I get repairs for S. S. Jewett & Co.'s stoves outside of stove repair house?

Ans.—Jewett & Company, Buffalo, New York.

HOT AIR SCREENS.

From the J. C. Lewis-Leykom Co., Antigo, Wis.

Can you advise us where we can obtain hot air screens made with angle iron frames and expanded metal mesh to be used in place of hot air registers?

Ans.—F. P. Smith Wire & Iron Works, 100 Lake St., Chicago, Ill.

MEDIUM TO CHEAP FURNACES.

From J. B. Holderbaum & Son, Somerset, Pa.

Please refer us to some makers of medium to cheap furnaces of boiler steel construction?

Ans.—Meyer Furnace Co., Peoria, Illinois; Haynes & Langenberg Mfg. Co., St. Louis, Mo.; Walter S.

Rait & Company, 211 Lake St., Chicago, Illinois; Quaker Furnace Company, 40 Dearborn St., Chicago, Illinois.

TUBS FOR PATENT WASHER.

From Frank B. Tyson, Randolph, Kans.

Can you refer me to a manufacturer who will make washing machine tubs for a patent washer?

Ans.—White Lily Mfg. Company, Davenport, Iowa; Michigan Washing Machine Co., Muskegon, Mich.

ROLLETT'S CHAMPION LAWN MOWER.

From Flanegin Hardware Co., 310 Market St., Logansport, Ind.

Please give us the name of the manufacturer of Rollett's Champion Lawn Mower.

Ans.—F. & N. Lawn Mower Company, Richmond, Ind.

OVAL HEAD BRASS RIVETS.

From Ideal Light & Fuel Co., Reed City, Michigan.

Will you kindly advise us where we can buy ¼ by ⅜ oval head brass rivets?

Ans.—Chas. H. Besly & Company, 15 So. Clinton street, Chicago.

ITEMS.

The Federal Mfg. Co. has been incorporated with a capital stock of $25,000 to manufacture metal plates and metal specialties at Baltimore, Md. The incorporators are Henry Sonneborn, Louis B. Sonneborn, Philip B. Sonneborn, Philip Praetoris and Heinrich Becker.

Berger Bros. Co., sheet metal workers and roofers of Philadelphia, Pa., are about to erect a new five-story factory and warehouse building, 85x107 feet. We are advised that the plans are all ready and that the work will be begun very early in the spring of 1908.

Mr. Geo. W. Battley, secretary of the National Association of Sheet Metal Workers, is lying critically ill at his home in Portsmouth, Virginia. Sincere regrets and earnest hopes for his speedy recovery are extended to Mr. Battley by co-members throughout the entire country.

Some material improvements and considerable enlargement will be given to the plant of the Parkersburg Iron & Steel Company's plant at Parkersburg, W. Va. A recent, very careful inspection of the plant determined it to be in most excellent condition in all ways. The company is in a highly prosperous condition and its sheet and other specialties are in very agreeable demand.

A new advertising card by H. Weiss & Company, 20 Cliff street, New York, shows their skylight gearing in illustrated form. A feature of this gearing is that it can be operated either by handles extended within reach of the operator or by pole and hook as may be desired. It may also be operated by a chain arrangement. It is a nicely arranged and very convenient hanger and as measurements and prices are provided it will be found a great convenience to all who have to do with skylights.

The regular monthly meeting of the Master Sheet Metal Workers' Association of Milwaukee, Wisconsin, will be held at the Builders' and Traders' Exchange in Milwaukee on Wednesday evening, November 6, at 8 p. m. Chairman Toneen and others will speak on Commercial Rates, and Treasurer Geo. P. Schmitt will talk about The Treasury, and a stag party will follow. We are advised that the Forest City Foundry & Mfg. Co. of Cleveland, Ohio, will distribute souvenirs.

The Tin Roofers' Handbook is now ready for distribution. About 15,000 copies of the work have been sent out to members of the Master Sheet Metal Workers' Association. Any members, or other sheet metal workers who have not received copies, may obtain them by writing to President Seabrook of the National Association of Master Sheet Metal Workers of the United States, at his office at 2213 Chestnut street, Philadelphia, Pennsylvania, or they may also be had by addressing THE AMERICAN ARTISAN, Chicago, Illinois.

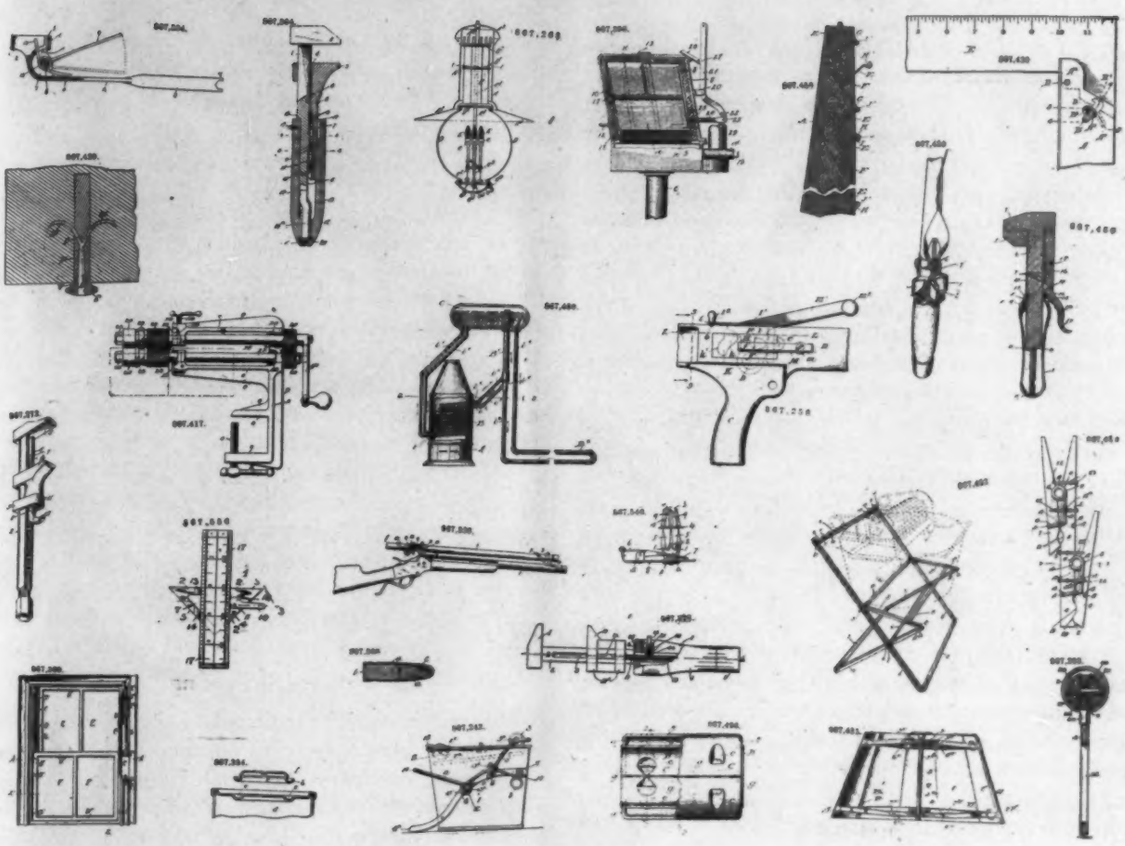
In a supplement to their catalogue No. 9, the Northrop, Coburn & Dodge Company, New York city, New York, offer a series of new designs in sheet metal ceilings, panels, borders and side wall sheeting that run to an assortment of new treatments in deep pressed panels and configurated tile effects. A combination deep sunk panel arrangement is a feature of the assortment of new things now being offered. Its parts run to very excellently designed decorative work and in the pressing and arrangement the sections are in a variety of sizes and shapes which when put together result in a number of different completed ceiling designs. The items of sharpness of detail in the pressing and accuracy of the joining edges are important ones in the work that are worthy of consideration. The illustrations shown in this supplement are arranged in the usual form of the catalogue it is intended to accompany.

EASTLAKE METAL SHINGLES.

The W. J. Burton Company of Detroit, Michigan, are manufacturers of the Eastlake brand of metal shingles, in the use of which no solder is required but a system of joints takes its place. These joints are guaranteed water-tight and the shingles are easily applied. They are described as fire-proof, durable, ornamental, and cheaper than wood shingles. The company have been manufacturing Eastlake shingles for more than 20 years and several Detroit roofs covered with them in 1887, when the patent was issued, are said to be in as good condition to-day as when the shingles were first made. The W. J. Burton Company has in its possession a long list of testimonials to the durability of Eastlake shingles, which are said to have come unsolicited from builders all over the country. Roofers are invited to write for prices, etc., and when writing kindly mention THE AMERICAN ARTISAN.

The Baltimore Enamel & Novelty Co., of Baltimore, Md., have let a contract for an addition to their present plant. The improvement will be of brick, 64x122 feet, and will cost about $5,000.

NEW PATENTS.



867,242—Mop Wringer. Arthur M. Burnham, Gardiner, Me., assignor, by direct and mesne assignments, to the Burnham Specialty Company, Waterbury, Conn. Filed Nov. 27, 1905. Serial No. 289,281.

867,268—Incandescent Gas Lamp. Thorne S. Haight, Manchester, England, assignor to Clark Way Harrison, Glasgow, Mo. Filed Dec. 15, 1905. Serial No. 291,885.

867,272—Wrench. Charles T. Holman, Meadville, Pa. Filed June 29, 1907. Serial No. 381,487.

867,283—Hanger for Doors. Oscar F. Mann, Indianapolis, Ind. Filed Dec. 26, 1906. Serial No. 349,522.

867,326—Wrench. George P. Weichel, Lorain, Ohio. Filed Feb. 27, 1907. Serial No. 359,592.

867,328—Telescope-Mounting for Guns. Joseph Wilkinson, Bridgeport, Conn. Filed Feb. 14, 1907. Serial No. 357,-387.

867,334—Buggy Wrench. Edward I. Allison, Saginaw, Mich. Filed Mar. 2, 1907. Serial No. 360,266.

867,369—Metallic Window Frame. William J. Henry, Oklahoma, Okla. Filed Oct. 26, 1906. Serial No. 340,695.

867,384—Manufactured Solder. Edward M. Lang, Jr., Portland, Me. Filed Dec. 10, 1906. Serial No. 347,172.

867,398—Furnace for Heating Nail Plates. William S. Myers, Ashland, Ky., assignor to Norton Iron Works, Ashland, Ky., a corporation of Kentucky. Filed June 8, 1907. Serial No. 377,872.

867,417—Sheet Metal Working Machine. Edward Riley, Spokane, Wash. Filed Oct. 16, 1905. Serial No. 283,019.

867,420—Folding Steel Square. John Roop, Carnegie, Pa. Filed July 19, 1906. Serial No. 326,888.

867,431—Collapsible Inner Shell for Molding Tapering Pipe. Charles L. Simpson, Minneapolis, Minn., assignor to Miracle Pressed Stone Company, Minneapolis, Minn., a corporation of South Dakota. Filed June 29, 1907. Serial No. 381,414.

Spike.—Robert E. L. Simmerman, Hartford, Ky. Filed June 1, 1907. Serial No. 376,776.

867,439—Fishing Tackle. Joseph Staehle, Schenectady, N. Y. Filed June 10, 1907. Serial No. 378,150.

867,450—Wrench. Ralph Toward, Carnegie, Pa. Filed June 10, 1905. Serial No. 264,640.

867,458—Fencing Fastener. Jonas H. Wiest, Indianapolis, Ind., assignor of one-half to Leonidas R. O'Haver, Indianapolis, Ind. Filed Feb. 6, 1907. Serial No. 355,993.

867,480—Water Heater. William P. Cosper, Chicago, Ill. Filed June 5, 1905. Serial No. 263,707.

867,489—Clothes Pin. William E. Faulkingham, Jonesport, Me. Filed Feb. 18, 1907. Serial No. 358,060.

867,493—Washing Machine Stand. Gottlieb W. Froelich, St. Paul, Minn., assignor to Froelich Manufacturing Company, Merriam Park, St. Paul, Minn., a corporation of Minnesota. Filed May 7, 1904. Serial No. 206,827. Renewed Dec. 13, 1906. Serial No. 347,694.

867,498—Pulley. Henry J. Gilbert, Saginaw, Mich. Filed July 6, 1903. Serial No. 164,426.

867,504—Wrench. Merl H. Hartman, Elkins, W. Va. Filed Apr. 1, 1907. Serial No. 365,790.

867,508—Projectile for Rifled Small Arms. Henry W. Holland and Thomas Woodward, Willesden, England. Filed Feb. 12, 1907. Serial No. 356,994.

867,546—Animal Trap. Orrin D. Wright, Oneida, N. Y., assignor to Oneida Community, Limited, Kenwood, N. Y., a corporation of New York. Filed Sept. 6, 1904. Serial No. 223,465.

867,556—Combination Tool. Robert Campbell, Elizabeth, N. J. Filed Oct. 2, 1906. Serial No. 337,060.

Trade Report.

HARDWARE.

The great west and northwest is strong in money and in resources. The farming element is rich and well conditioned and happily in the nature of things with these conditions to sustain them there is less inclination to pessimism there than in any section upon the North American continent. Chicago banks are in excellent shape, better shape in fact than those of any other section of the country, and it may be said that they reflect the real condition of the section of the country that is directly tributary.

Hardware lines are here in thoroughly good conditon and among the representatives thereof nothing pessimistic in character is observable. Winter lines of goods are in excellent request and the entire trade is in a satisfactorily active condition. There are few if any notable changes in prices or terms and the market is wholly steady. A slight advance has occurred in galvanized conductor pipe and eaves trough. Galvanized steel trough has gone from 70 to 30 per cent to 75 and 5 per cent discount. Wire products are firm and active, plain wire fence and fencing wires are exceedingly active and are followed closely by barb wire, both painted and galvanized and prices are well maintained. Wire nails are at $2.23, painted barb wire, $2.68; smooth annealed wire, $2.08; polished staples, $2.23; galvanized, $2.63. Car lots to retailers five cents higher. Less than car lots fifteen cents higher.

TIN PLATE.

The tin plate market continues to present a quiet appearance, and business in progress is not of large proportions, and is much smaller than is usual at this season of the year. To an extent this has been occasioned by a reduced harvest of fruits and vegetables which very materially has reduced the output of canning plants all over the country. It is expected that, in view of the drop of about 15 cents in the price of pig tin since early in the year, when the last list was issued, that there will be a slight reduction in prices of plate very shortly. Present quotations are $3.90, f. o. b. Pittsburgh, with $3.85 still quoted by the independent mills. Price f. o. b. Swansea for tin plate is 13s 10½d. Arrivals of tin plate for the week ending Oct. 19 were 42,278 boxes at New York. Stocks of tin plate in Swansea on Oct. 10 were 198,320 boxes, against 180,511 at the same time a year ago.

QUOTATIONS.

For prompt shipment, f. o. b. mill—

Coke tins, 14x20, I. C.	$4.05@$4.10
Coke tins, 14x20, 100 lbs	3.90@ 3.95
Coke tins, 14x20, 95 lbs	3.85@ 3.90
Coke tins, 14x20, 90 lbs	3.80@ 3.85
Charcoal terne, 20x28, I. C.	7.50@ 7.55
Charcoal terne, 20x28, 200 lbs	7.20@ 7.25

Usual differences for odd sizes and weights.

SHEET ZINC.

Demand for sheet zinc is of small proportions, business being of a more or less routine character. Prices are steady on the basis of $7.50 per 100 pounds, f. o. b. smelter, with 8 per cent discount. There is no charge for extras. Prices on cask lots are held at 7.55@7.65c per 100 pounds.

SHEETS.

The sheet market shows little if any change from our report of a week ago. Shading of prices are reported, but not to any appreciable extent, and there is little authoritative foundation for such reports. Orders show a considerable falling off during the week, but mills are busy on work that will keep them busy for a long time to come. Shipments show improvement.

The following prices are for 500-bundle lots and over, f. o. b. mill:

		—Galvanized—	
Gauge.	Net.	Net.	List.
No. 30	2.85	4.25	21
No. 29	2.75	4.00	19
No. 28	2.60	3.75	17
No. 27	2.50	3.55	16
Nos. 25 to 26	2.45	3.35	15
Nos. 22 to 24	2.40	3.15	14

COPPER.

The copper market continued to advance during the week, and a good volume of business was in progress, which was mainly for export. The market is still a wide one, and there are no fixed prices for the metal. The excitement in the London market is mainly responsible for the flurry in America, and it is reported that the British interests are taking good volume of the metal. There is still a feeling in the trade that the market is not on a stable basis, and that the bulk of the exports do not represent copper going into actual consumption abroad, but is for financial purposes. Out of the 50,000,000 or 60,000,000 pounds that have been exported during the present month, it is estimated in some quarters that about 10,000,000 pounds of this represent the total volume of actual sales to British consumers.

It is thought in many quarters that the future of the copper market depends on the course of prices during the next few days. Should the excitement in London grow to the extent of consumers covering heavily for 1907 shipment, and the buying movement spread to this country, there will undoubtedly be a heavy reduction of the large surplus in the hands of the large producers in this country, and a consequent steadying of the whole market. Should the movement fail to develop, however, and copper prices start to sag, it is predicted that the market would reach a much lower level than it has seen this year.

It is reported that a bid of 14c was made for a block of 50,000 pounds of lake to a Boston concern, but that the bid was refused. About 4,000,000 pounds additional were thought to be a shade under 14c. The Metal Exchange on Tuesday advanced prices sharply all around to 13¾@14¼c for lake, 13½@14c for electrolytic and 13¼@13¾c for casting copper.

Exports from New York and Baltimore were 2,404

tons, making a total of 26,217 tons since Oct. 1. Arrivals at New York were about 50 tons matte.

Extreme fluctuations for this year:

	Highest.	Lowest.
Electrolytic copper, spot	25½	11¾
Lake copper, spot	25¾	12⅛
Casting copper, spot	24½	11⅝

IRON BARS.

There has been a good business in progress during the past week in iron bars, and the market has assumed a more active appearance. While there are no large orders in sight, the trade is under an insistent pressure for small lots, which bids fair to continue for some time. Prices are firmly held at 1.60@1.65c, Pittsburg.

PIG IRON.

There were indications of an opening wedge of weakness in the pig ron market during the week, particularly in southern irons, which it is reported were in several cases taken at from 50c to a dollar below the regular quotations, not through the list, but on special brands. Orders continue small and were less numerous during the week than during the previous week, but the regular factory consumption has not materially decreased. If the rumored and apparent shading of quotations continues there is a promise of greater activity. Reports gathered from many sources continue pessimistic, however, as relates to old pig iron brands. Quotations follow:

CHICAGO MARKET.

Lake Superior Charcoal	$26.00@$26.50
Northern Foundry No. 1	22.00@ 23.00
Northern Foundry No. 2	21.50@ 22.50
Northern Foundry No. 3	21.50@ 22.00
Southern Foundry No. 1	21.85@ 22.35
Southern Foundry No. 2	21.35@ 22.35
Southern Foundry No. 3	20.85@ 21.85
Southern Foundry No. 4	20.35@ 20.85
Southern No. 1 Soft	22.85@ 23.35
Southern No. 2 Soft	22.35@ 22.85
Southern Gray Forge	20.85@ 21.35
Southern Mottled	20.35@ 20.85

PITTSBURG MARKET.

No. 2 Foundry	$20.65@$20.90
Grey Forge	20.00
Bessemer	22.25
Basic	19.90

BIRMINGHAM MARKET.

No. 1 Foundry	$19.00@$19.50
No. 1 Soft	19.00@ 19.50
No. 2 Foundry	18.00@ 18.50
No. 2 Soft	18.00@ 18.50
Gray Forge	16.00@ 16.50

Rogers, Brown & Co., Cincinnati, will say in their weekly report:

Our market this week presents all the characteristics of a rank "in-and-outer." There have been a few inquiries for good sized tonnage and some fair business done. On the other hand, reports have been received of distinctly opposite nature, and it appears there continues to be a very wide difference in the quoted prices of pig iron by various companies. More than ever is this due to the present condition of furnace order books and the ability or inclination of furnaces to consider business as it comes up. Each day increases the evidence of curtailed output by furnaces, and those that are in best shape as to their orders will probably take early opportunity of making needful repairs or alterations to plants.

The iron trade, of course, has felt indirectly the effect of recent financial happenings in Pittsburg and the East, and has reflected conditions accordingly, but there is nothing in the actual business in the iron trade to warrant its being used as any part of the cause for the effects which we have witnessed in the last few days.

From a number of our customers, leaders in various lines, careful investigation shows that while they may not be doing the amount of business they had expected and hoped to do at this time, the volume of their business is larger than the corresponding period last year, which means that it is the largest in their history. In many instances we find that the expansion of plants to increase production which was started some months ago, has about been completed, and when such producer claims he is not running full it should be taken into consideration that his capacity is much larger than it was a year ago. Some consuming lines have a naturally dull period at or about this time which recurs each season, no wise depending upon business conditions or effects. It is the natural course of that particular line of consumption and should be considered as such.

Building operations, together with other lines of structural steel users, have curtailed operations considerably and, as a result, the market for this commodity has been quiet, although a fair tonnage which has been pending recently has been closed. It is stated that one of the largest producers of structural steel will this month break all records for production.

In other territories the outlook since the disturbance in financial circles of last week is distinctly of better character and a good tonnage has been placed. Considering influences which have been exerting themselves throughout the country, sales for the week generally are very satisfactory. Foundry and low grades appear to have the call, rolling mills and pipe shops being the principal buyers. Small interest in 1908 continues and each day past brings nearer the time when some earnest consideration must be given to this subject.

The recent financial difficulty to which reference has been made seems to have come at a fortunate time, in that the fundamental conditions throughout the country are such as preclude any chance of its being a general financial upheaval or a condition of panic such as has been witnessed in the past. It has been evident for some time that a slowing down process in activity was due, and this has been true in almost all lines. That this contraction and, as it were, a clearing up of financial atmosphere can be accomplished with some efforts at control, means ultimate saneness and safety without passing through complete disorder. This appears now more possible than at any time before.

The coke market is steady, prices are well maintained and shipments averaging well, although car supply, labor shortage and impending cold weather will serve to make themselves felt. The last is an element which is just beginning and will cut a large figure for three or four months.

Matthew Addy & Co., Cincinnati, will say in their weekly report: Decidedly more inquiry and compartively quite a little purchasing are the features of the week. The inquiry now looks as if it were the kind that really meant business. Some time back consumers were asking for prices for the first quarter of next year, but they were only feeling the market. Apparently they had no actual intention of buying. At all events no orders worth mentioning were placed. Now the inquiry is for small lots for November and December and frequently the melters state that if they buy they must be assured of having the iron shipped on contract time, as they will have to have it. A good many of these current inquiries are simply for car loads and then again they run up to 500 and every now and then 1,000 tons. They conclusively show the cautiousness with which buyers are proceeding. In view of the complications in the money market this was to have been expected.

Broadly speaking, there is hesitation in the iron and steel trade and a general sentiment that a readjustment of values is in order. But there is no absolute pessimism. We have been traveling on a Twentieth Century Limited for more than a year and possibly it will do no harm to take a slower train for the next trip, but there is no earthly reason to anticipate that we shall be reduced to stealing a ride on a freight.

Regarding prices there is some irregularity, but they are holding their own remarkably well.

Coke in some districts is in such short supply that there is serious trouble. In the past week many furnaces have been actually obliged to shut off the blast for a while until cars of coke could be specially switched into the yards. The railroads are not feeling even most remotely the business squeeze, for they are being offered more freight than they can carry, and without doubt the coke fields for several months will be seriously embarrassed by reason of a lack of cars.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$7 20
IX	14x20	8 25
IXX	14x20	9 40
IXXX	14x20	10 65
IXXXX	14x20	11 80
IC	20x28	14 50
IX	20x28	16 50
IXX	20x28	18 95
IXXX	20x28	21 35
IXXXX	20x28	23 75

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 50
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

Lake Sup. Charcoal	$26 00@$26 50
North'n Fdy., No. 1	26 00@ 26 50
North'n Fdy., No. 2	25 50@ 26 00
North'n Fdy., No. 3	25 00@ 25 50
Northern Scotch Fdy	26 00@ 26 50
Ohio Strong Softeners, No. 1	26 30
Ohio Strong Softeners, No. 2	25 80
Southern Fdy., No. 1	23 40@ 25 40
Southern Fdy., No. 2	22 90@ 24 90
Southern Fdy., No. 3	22 40@ 24 40
Southern Fdy., No. 4	21 90@ 23 90
Southern No. 1 Soft	23 40@ 25 40
Southern No. 2 Soft	22 90@ 24 90
Southern Gray Forge	21 40@ 23 40
Southern Mottled	20 90@ 22 90
Southern Silveries, 4 to 6 per cent Silicon	27 40@ 29 40
Jackson Co. Silveries, 8 to 10% Silicon	31 40@ 33 40
Ala. and Geo. Car Wheel	28 40@ 28 90
Malleable Bessemer	25 50@ 26 50
Standard Bessemer	25 50@ 26 50
Basic, Pittsburg	22 85

BLACK STEEL SHEETS.

Nos. 11-12	per 100 lbs.	$2 60
Nos. 13-14	per 100 lbs.	2 65
Nos. 15-16	per 100 lbs.	2 70
Nos. 17-21	per 100 lbs.	2 75
Nos. 22-24	per 100 lbs.	2 80
Nos. 25-26	per 100 lbs.	2 85
No 27	per 100 lbs	2 90
No 28	per 100 lbs.	3 00

GALVANIZED

Nos. 10-11	per 100 lbs.	$3 15
Nos. 12-14	per 100 lbs.	3 25
Nos. 15-16	per 100 lbs.	3 25
Nos. 17-21	per 100 lbs.	3 50
Nos. 22-24	per 100 lbs.	3 65
Nos. 25-26	per 100 lbs.	3 85
No. 27	per 100 lbs.	4 05
No. 28	per 100 lbs.	4 25

POLISHED SHEET STEEL.

No. 24	per 100 lbs	$4 90
No. 26	per 100 lbs.	5 00
No. 27	per 100 lbs.	5 10
No. 28	per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20	$3 05
" " No. 22-24	3 10
" " No. 25-26	3 15
" " No. 27	3 20
" " No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, "A" $10.20, "B" $9 20

PATENT PLANISHED SHEET STEEL.

Dickey Planished Sheet Steel....8½c

SOLDER.

XXX Guaranteed ½ & ½	per lb.	25½c
Commercial ½ & ½	per lb.	25 c
No. 1 Plumbers		24½c

SHEET ZINC.

500 lb. Casks	case, per cwt.	$9 50
300 lb. Casks	per cwt.	9 50
Sheets	per cwt.	10 50

COPPER.

Copper sheet, 100 lbs. over, base...24c

TIN PIGS AND BARS.

Banca, pigs, per lb	44 c
Straights, pigs, per lb	44½c
Straights in bars, per lb	47 c

LEAD.

American Pig	6½c
Bar	7½c
National (White) brands (in less than 100 lb lots), per lb	8½c

Sheet.

Full coils	per 100 lbs.	$9 00
Cut coils	per 100 lbs.	9 50

HARDWARE.

ADZES.

Carpenters'.
Plumbs....40%

Coopers'.
Barton's....20%
White's....15%

Railroad
Plumbs....40%

Ship.
Plumbs....40%
White's....12½%

AMMUNITION.

Caps, Percussion—per 1,000.
F. L Waterproof, 1-10s....40c
G D....35c
Musket....60c

Cartridges.
Winchester Rim Fire Ctgs....50&33%
Winchester Cent. Fire, Pistol and Rifle....25&3%
Winchester Cent. Fire, Military and Sporting Ctgs....15&8%
Winchester Blank Ctgs., 22 cal. $1 25
Winchester Blank Ctgs., 32 cal., C. F....4 00
Winchester BB Caps, Rnd. ball 1 50
Winchester BB Caps, Conical ball....1 95
Winchester Cent. Fire, Military and Sporting Ctgs....15&8%

Primers.
Berdan Primers....$1 00
Winchester Primers....20%

Shells.
New Rival Empty Paper Shells, 10 and 12 gauge....25%
New Rival Empty Paper Shells, 16 gauge....20%
Repeater Empty....20%
Leader Smokeless....25%
Winchester Repeater Loaded Shells....40&5%
Winchester Leader....40-10&10%
New Rival Loaded Shells..33⅓&11%

Gun Wads—per 1,000.
Winchester Gun Wads....15%

Powder. Each.
DuPont's Sporting, kegs....$ 50
" " ½ kegs.... 2 50
" " ¼ kegs.... 1 40
Dupont's Sm'k'less, 50-lb. drum 22 45
" " 25-lb. kegs 11 30
" " 12½-lb. kegs. 5 80
" " 6¼-lb. kegs. 2 97
" 1-lb. cans.... 15

Shot.
Drop shot, sizes smaller than B, 25-lb. bags, per bag.... 1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag.... 2 20
Buck Shot, 25-lb. bags, per bag 2 20
Chilled Shot, 25-lb. bags, " 2 20

ANCHORS

Expansion Screw Anchors....10%

ANVILS

Trenton, 70 to 80 lbs....9½c per lb
Trenton, 81 to 150 lbs....9½c per lb

ASBESTOS.

Board and Paper....25%

AUGURS.

Boring Machine....70%
Irwin's....40&10%
Carpenter's Nut....70%
Hollow.
Bonney's—list $30.00....75&5%
Stearns, No. 3....30 00
Post Hole.
Digwell, 8-inch....per doz. 12 50
Iwan's Post Hole and Well.. 40%
Vaughan's, 4 to 9-in., per doz. 6 25
Rafting.
Snell's....50&5%
Ship.
Ford's, with or wi'out screw. 40-12½%
Snell's " " " 40-5%

AWLS.

Brad.
No. 3 Handled....per doz. $0 40
No. 1050 Handled.... " 80
Shouldered, assorted, 1 to 4, ...per gro. $1 20
Patent asst'd, 1 to 4... " 85
Harness.
Common.... " 95
Patent.... " 90
Peg.
Shouldered.... " 1 20
Patent.... " 60
Scratch.
No 1 handled.... " 4 80
No. 15, socket handled per doz. 1 25
No. 7 Stanley.... 1 80
Sewing.
Common....per gro. 90
Patent.... " 90

AXES.

Boy's Handled.
Lippincott, 3 lb....per doz. $6 00
Falls City.... " 6 00
Broad.
Plumbs, West, Pat.... 33⅓%
" Can. Pat.... 40%
" Firemen's (handled) ....per doz $1, 75
Plumbs, Miners' (handled) " 6 75
Single Bitted (handled)
Gladiator . 3 to 4 lbs , per doz $11 00
Flint Edge " " " 9 25
Standard .. " " " 9 25
Elec Chopper, Forest Clipper 10 50
Perfect Premier " " 10 00
Crown " " 7 00
Single Bitted (without handles)
Gladiator.. 3 to 4 lbs. per doz. $8 50
Flint Edge. " " 7 00
Standard... " " 7 00
Electric Chopper" " 8 25
Perfect.... " " 7 75
Crown.... " " 6 25
Double Bitted (without handles).
Gladiator... 3 to 4 lbs. per doz. 11 50
Flint Edge. " " 9 75
Perfect.... " " 11 00
The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's....40%
Pelouze....20%

BARS, CROW.

Pinch or Wedge Point..per cwt. $3 75

BASKETS.

Clothes.
Small Willow....per doz. $7 00
Medium " .... " 8 75
Large " .... " 10 50

Galvanized Iron.	½ bu.	1 bu.	1½ bu.
Per doz.	$4 75	6 50	8 00

BEATERS.

Carpet. per doz.
No. 10 Coppered Spring Wire. $0 90
No. 12 Spring Wire.... 1 10
No. 10 Preston.... 1 10
Egg. Per doz.
No. 50 Imp. Dover.... $0 75
No. 102 " " tinned.... 85
No. 150 " " hotel.... 1 40
No. 10 Heavy hotel tinned... 2 10
No. 13 " " " ... 3 30
No. 15 " " " ... 3 60
No. 18 " " " ... 4 50

BELLOWS.

Blacksmiths'....65%
Hand.
8-inch....per doz. $8 50
10-inch.... " 10 50
Moulders'.
12-inch.... " 12 50

BELLS.

Call.
3-inch Nickeled Rotary Bell, Bronzed base....per doz. $5 00
Cow.
High Grade....60%
Kentucky....65&10%
Door. Per doz
New Departure Automatic... $6 00
Rotary.
3 -in. Old Copper Bell.... 4 00
3 -in. Old Copper Bell, fancy.. 6 00
3 -in. Nickeled Steel Bell.... 4 50
3½-in. Nickeled Steel Bell.... 5 00
Hand.
Hand Bells, polished....40&5%
White Metal....40%
Nickel Plated....30%
Swiss....40&33⅓%
Silver Chime....33⅓%
Miscellaneous.
Church and School, steel alloy..50%

Farm, lbs	40	50	75	100
Each	$1.25	1.60	2.35	2.85

BEVELS, TEE

Stanley's, rosewood handle, new list....25%
Stanley's iron handle....25%

BINDING, OILCLOTH.

Zinc....80%
Brass....70&10%
Brass plated....75&5%

BITS.

Auger.
Extra Double Spur....70&10%
Ford's Car and Machine....40&10%
Triumph....50&5%
Ford's Ship....40&10%
Irwin....50%
Russell Jenning's....25&10%
Clark's Expansive....50%
Steer's " Small list, $22.00..25%
" " Large " $26.00 .25%
Irwin Car....45%
Ford's Ship Auger pattern Car....40&10%
Center....40&10%
Countersink.
No. 18 Wheeler's....per doz. $1 25
No. 20 " .—.. " 1 75
American Snail head.. " 75
" Rose " .. " 90
" Flat.... " 75
Mayhew's Flat.... " 1 25
" Snail.... " 1 25
Dowell.
New Jennings....40&10%
Gimlet.
Standard Double Cut....60%
German Pattern....per doz. $0 60
German.... " 65
Gouge.... " 80
Spoon.... " 80
Countersink.... " 1 00
Reamer.
Jenning's Square.... " 2 50
Standard Square.... " 75
German Octagon.... " 75
Screw Driver.
No. 7 Common.... " 50
No. 1 Triumph.... " 1 25
No. 2 .... " 1 —
No. 340 Shepardson's. " — —
No. 1 Smith's.... " — —

BLACKING, STOVE. (See Polish).

BLADES, SAW.

Butchers'.
Standard, ⅞ & 1¼-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50

Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%

Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%

Tackle.
Iron Strapped.....70%
Com. Steel.....60%

BOARDS.

Stove.....40%

Wash.
Globe, single.....per doz. $3 15
Globe, double..... " 3 65
Magnolia..... " 3 55
Crystal Glass..... " 4 35
Brass King..... " 4 50
Nickel Plate..... " 4 15
Enamel King..... " 4 35

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 80
No. 3, lead..... " 2 90
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ⅜x6 and sizes smaller and shorter.....70%
Carriage, sizes larger and longer than ⅜x6.....50-10&5%
Machine, ⅜x4 add sizes smaller and shorter.....70%
Machine, sizes larger and longer than ⅜x⅜x4.....60%
Elevator.....50-10&5%
Plow.....60&10%
Stove.....80%
Tire.....75%
Wagon Box Strap.....70%

Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%

Barrel.
Cast.....60%
Wrought.....
Wrought, bronzed.....50%

Flush.
Wrought.....50&10%

Spring.
Wrought.....
Wrought, heavy.....

Square.
Cast.....50&10%
Wrought.....

BORERS.

Angular.
Miller's Falls.....per doz. $13 00

Bung.
Doz.
Enterprise Mfg. Co 's No 1... $14 00
" " " No 2.. 18 50

BOXES

Mail, No..... 1 2 10
Per doz.....$3.50 5.50 17.50

Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's.....50&10&10@50&10&15%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108.....$3 50
" No. 08..... 2 75
" No. 010..... 2 85

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 60

Shelf.
Cast Iron, bronzed.....50-10&5%
Griffin Wrought Steel.....70&10%
Griffin Folding.....70%

BROILERS.

Wire.....70%
No. Cwron, Self-basting, 80dos .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star..... " 5 00
IXL..... " 6 75

Well.
Galv'd Qts..... 10 12 14
Per doz.....$2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....20%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%.
Wrought Brass (New List).....20%
Wrought Steel, Bright.
Wrought Steel, Japanned.
Nos. 731 and - 70%

CALIPERS.

Double.....65&5%
Inside and Outside.....65&5%
Wing.....70%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75

Toe.
Shoenberger.....per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons..... 20 30 40
Each..... $4.25 $5.00 $6.25

Milk.
Holstein.
Nos..... 300 301 302
Gals..... 6 8 10
Per doz.....$26.00 $27.00 $29.00

Chicago Pattern.
Nos..... 105 108 110
Per doz.....$20.00 $22.50 $24.00

Iowa Pattern.
Nos..... 408 410
Per doz..... $24.50 $25.50

New Elgin Pattern.
Nos 705 708 710
Per doz.....$27.00 $29.00 $30.50

Burn Pattern
Nos..... 700 701
Gals..... 8 10
Price..... $2.40 $2.65

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....70%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's,.
Nos..... 1 2 3
Per doz.....$5.60 $5.75 $6.25
Nos..... 4 5 6
Per doz.....$6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85

Bright Ox Chains.
⅜-in. $7.25; ⅜-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ¼ 7/16 ⅜
Per 100 lbs.$10.80 $8.00 $7.00 $6.20
Inch..... 7/16 ½ ⅝ ¾
Per 100 lbs.$6.00 $5.90 $5.75 $5.65
Inch..... ⅝ 1 1¼
Per 100 lbs.....$5.55 $5.55 $5.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.

Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%

Halter Chains.
American, new list.....33⅓%
German.....50&10&5%
Niagara, new list 40%
Brown's, " 40%

Picture Chains.
Light Brass, 3 ft.....per doz. $0 65
Heavy Brass, 3 ft .... " 1 00

Pump Chain
Galvanized, per 100 lbs.....$5 50

Safety Chain.
Brass.....50%

Special Steel Loading Chain.
Inch..... ⅜ 7/16 ½
Per 100 lbs.....$16.00 $13.50 $12.50

Stretcher Chains
5/16-in. $8.50; ⅜-in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's.....70&5%

Trace Chains.
Western Standard.
6½— 6-2.....per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 33c
6½—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.

Wagon Stay Chains.
Inch..... ⅜ 7/16 ½
Per 100 lbs.....$6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 65c
White..... " 55c
Common White School Crayon..... " 8c

CHARCOAL.

In bags.....per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.
Inches..... 10 12 14
Round per doz....$2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20

Cold.
Good quality, ½ in. and larger.....per lb. .12c
Smaller size per doz.....

Socket, Framing and Firmer.
Barton's.....20%

Tanged, Firmer.
With handles.....30&5%

Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood,
Gal..... 5 7 10
Each.....$3.90 $4.60 $4.85
Belle, Barrel.....65&7½%
Common Dash, Gal. 4 5 6
Per doz..... $7.75 $8.50 $10.50
Union, Gal..... 5 7 10
Each.....$3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's.....30%

Carpenters'.
Steel Bar.....25%

Hose.
Sherman's, brass, ½-in., per doz.. 42c
Double, brass, ¾-in., " 90c

Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $7.50.

CLAWS, TACK.

Cast, wood hdle.....per doz.45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 60

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%

Pot.
Wire.....per doz. $0 55

Side-Walk.
Steel.....per doz. $3 25
XLCR .....65&5%

CLEAVERS

Family.
Griffin, Inch..... 6 7 8
Per doz.....$5.50 $5.75 $6.25
Royal.....per doz. 2 25

Butchers.
Beattys, Kitchen 40%

CLEVISES

Malleable .....5½c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%

Damper.
Standard.....per doz. 65c
Troy..... " 38c

Hame..... " 17

CLOTH.

Emery.
Star.....50%
B. & A.....50%

Hardware Wire—full rolls (100 ft.)
2 to 8 mesh, black, per 100 sq. ft..... $2 50
9 to 12 mesh, black, per 100 sq. ft..... 2 50
2 to 3 incl., Galv.—in full roll... 4 50
4 and 5..... " .. 4 75
6..... " .. 5 00
7 and 8..... " .. 5 50

Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 25

COCKS AND FAUCETS.

Compression Plain Bibbs.....60%
Lever Bibb Cocks.....60%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list).....60%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets.....75%

COLLARS, STOVE PIPE.

Inches..... 5 6 7
Plain Tin..per gro.$1.90 $2.40 $3.50
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass" 3.00 5.50 4.25

COMBS, CURRY.

Nos... 000 11 15 39 89 108
Per Doz..$.37 .60 1.00 .90 1.15 .80
Nos... 299 320 390 532 620 1400
Per Doz.$1.05 .85 1.35 1.20 .75 1.40

COMPASSES.

Carpenters'.....60—10—10%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 35c
1½ lb.....33c 2 lb... " 36c
3 lb and larger..... " 33c

CORD.

Picture
White Wire (new list).....85%

Sash.
Baltic Braided Flax.....per lb
Silver Lake. white. 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 29c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&30%

COUPLINGS, HOSE.

Brass.....per doz. $
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$22 75

CRAYONS—See Chalk.

CROW BARS.

inch or Wedge Point.....per lb 3¾c

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%
Pipe.
Stanwoods.No.... 1 2 3
Each.....$0.85 $1.50 $4.00
Slaw and Crout.
3-knife Crout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife Slaw..... " 2 25
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Standard.....50%
American.....45%
American.....45%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in. 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Common.....each, $2 25
Millers Falls..... " 2 10
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Territory. L. C. L.
Eastern.....70&30%
Central.....80%
Southern.....70&30%
Western.....70&30%
S. Western.....75&7½%
Terms, 2% for cash. Factory shipments generally delivered.
See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65
Corrugated Conductor.
Discount.....75&10%
Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished, " .. 1.40 1.70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size .....5-lb. pkgs. ½ kegs, kegs
No 60 to 150, per lb.. 4c 4c 4c
Flour..... " ... 3c 3c 3c

ENAMEL, IRON.

Nubian, ½-pt. cans.....per doz. 1 65
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig.

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70%
Kearney & Foot.....75&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine 60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 .15
Each.....$2.95 3.80 4.50 5.20
White Mountain.
20 qt., New Platform....each, $19 10
25 qt., " " " 22 00
25 qt., Sampson Power, " 43 50
40 qt., " " " 58 25

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90%
Double.....90&10%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12 c
A White..... " 15 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....55&15%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 25
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 50c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs .....75&5%
5 lbs. and over.....75-10&5%
Masons'.
Single and Double Face.....75&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 38
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....50&10%
Drifting Pick.....50&10%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....33⅓%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eave Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....50-10&5%
Cast Claw.....per doz. $1 20@1 45
Cast Shingling.... " $0 95@1 20
Germantown.....40%
Plumb.....33⅓&5%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 05
Gate.
Clark's..... 1 2 3
Hgs & Ltch. . doz. $2.50 2.90 4.00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $6 00
Leed's..... " sets 6 75
Superior..... " prs. 9 50
Spring.
American.....20%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $8 00
Oxford.....20%
Wrought Iron
New Lists .....
Griffin
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3 40
Screw Hook and Eye.
½ in.....per 100 lbs. $6 75
⅝ in..... " " 7 75
¾ in..... " " 9 75

HOES

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's..per dos. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per dos. $7 00
Chain.
Inch..... ¼&⅜ ½ ⅝ ¾
Per 100...$7.60-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable .... 50&10% @50&10&5%
Wrought .. .... 40&10% @50%
Corn.
Common, unpolished, per doz. $1 35
Common, polished.... " 1 80
"Cut Easy"..... " 2 75
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50% @50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring.....per lb. 5½c

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 50

HOSE, GARDEN.

		Coupled, per ft.
Heron, 3 ply-¾" guar. press	55 lbs.	7½c
Crane.. " " "	75 "	8½c
Falcon " " "	95 "	9½c
Eagle " " "	120 "	10½c
Condor " " "	150 "	11½c
High Test " " "	200 "	12½c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.	400 lbs.	11¾
Special " " "	300 "	9½c
Leader " " "	100 "	7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 50 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40
Clark's.
No..... 1 63 200 400
Per doz.....$0.40 .75 .75 1.75
Nos..... 200s 40s 3s 4s
Per doz.....$0.85 .50 1.25 1.25
Nos..... A AB F
Per doz.....$3.00 $4.25 $2.50

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's,
No. 50 J. Enterprise, per set 93
No. 55 J. " " " 90
No. 50 T. " " " 1 00
No. 55 T. " " 96
No. 50, Bless & Drake " 93
No. 55, " " " 99
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest . . " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80
Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander'z..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2½-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Buhl . . . . . .net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate, 42c

MACHINES.

Boring.	Without Augers	With Augers
Angular.....per doz.	3 00	4 40
Upright..... "	2 00	4 00
Leather Riveting.		
Chicago, Pomeroy....per doz.		$9 00
Excelsior..... "		2 00
Handy..... "		2 00
Little Giant..... "		3 00
Pony, Pomeroy..... "		7 20
Washing.		
Winner.....per doz.		54 00
Keystone..... "		54 00
U. S. Steel..... "		60 00
Advance, f.o.b.Chicago "		24 50

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs..... 10 13 16 18
Per doz.... $4.00 4.50 5.25 5.60
Wood face, lbs..... 10 12 14
Per doz..... $5.00 5.50 6.00
Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	bu.
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....20%
Second Quality.....25%

MILLS, COFFEE.

Enterprise.....25%
Parker.....40-12½&2½%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1½ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Ball-Bearing.
Inches..... 14 16 18 20
Each.....$6.25 6.75 7.25 8.00
Cheap Grades.
Inches..... 12 14 16 18
Each.....$2.35 2.45 2.55 2.70
Clipper.....50, 10&10%
Yale.
Inches..... 14 16 18 20
Each.....$3.50 3.75 4.00 4.35
Philadelphia.
All Styles, except A & E, 60, 10&10%
Style A.....50&10%
Style E, High Wheel....60, 10&10%
Drexels.....40%
All Day .....Net Price

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 40
Carload Lots..... 2 35
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf ..... per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving.....Void
Galvanized after weaving.....Void
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 96
Magic..... " 3 50
Mystic..... " 3 60

NUTS, HOT PRESSED.

Square Blank.
In ½ ⅝ ¾ ⅞ 1 1⅛
lb 9½c 8c 6½c 5½c 5½c 5c 4½c
Square Tapped.
In. ½ ⅝ ¾ ⅞ 1 1⅛ 1¼
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin..... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 3 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn .. 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 00
Rag..... " 0 00

PARERS.

Apple.
Bay State.....per doz. $13 30
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel.

Inches.....	6	8	10	12
Per doz.....	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.
Territory.
Eastern.....70%
Central.....70&5%
Southern.....70%
Western.....70%
Southwestern.....65&5%
Lead.
Full coils.....per lb. 7½c
Cut coils..... " 7½c
Stove

Acme—Inches....	5	6	7
Smooth, per jt...	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished.....	14½c	15½c	18 c
Planished.....	28 c	31 c	35½c
Made-up—Inches..	5	6	7
Smooth.....	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c
Yale Patent Lock Pipe—Stove.

	5"	6"	7"	7"to6"
Blue Steel:	Cents			
Battle Axe Blue...	7	7½	9½	10½
Can't Slip " ..	7½	8½	10	11
Peerless " ..	7½	8½	10	11
Duplex "	10	11	13	14
Yale, Rus. Pin....	15	16	17	18
Duplex Planished,	30	31	37	38
Galvano, Gal.....	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Crating made-up pipe extra.
Wrought Iron Gas Pipe.
⅛@½-in., black.....discount, 60%
⅝@½-in., black..... " 60,10&5%
½-in. to 6-in., black... " 70%
7-in. to 12-in., black... " 62½%
⅛@½-in., galvanized.... " 42%
⅝@½-in., galvanized.... " 50%
½-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench.....25&5%

PLANTERS.

Corn.
Monitor.....per doz. $7 75
Triumph..... " 6 00
Segment..... " 9 00
Potato.
Acme.....per doz. $6 25
Challenge..... " 11 00
Pingree..... " 2 25
Eureka..... " 6 25

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Button's—Ins.. 4½ 6 8 10
Per doz..... $2.75 3.35 4.15 5.15
Button's Pattern.

Inches.....	4½	6	8	10
Per doz.....	$2.25	2.75	3.25	4.25

Cutting
Bernard's.....30%
Lodi.....50%
End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co.....50%
Fencing.
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%
Gas—Inches.. 7 8 10 12
Per doz..... $3.00 3.50 4.50 5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common.....60&10&10%
Cook's.....40%
Davis' Iron.....25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
Pride of the Bar..... $1 00
Putz Cream,

Pts.....	1-6	½	1
Per doz.....	$0.80	1.10	1.65

Pts.....	1	2	3	8
Per doz..	$2.75	4.50	7.50	12.50

White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz... 1 00
Wondershine,

Pts.....	1-6	½	1	2
Per doz.	$0.70	1.35	2.25	3.00

George William Hoffman
U. S. Metal Polish Paste, 3-oz boxes, per doz., 50c; per gro 4 55
½-lb. boxes.....per doz 1 20
1-lb. boxes..... " 2 25
U. S. Liquid, 8-oz cans, per doz., $1.25.....per gro 12 00
Barkeepers' Friend Metal Polish.....per doz 1 75
.....per gro 18 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro..... 5 00
Stove.
Black Eagle, 1-lb. cans, pr gr, $15 00
Black Silk—
5-lb. pail..... $0 75
Paste, 5-oz. cans....per doz 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans.... " 1 00
Liquid, 6-oz. cans... " 75
Steel Range Gloss.... " 1 75
Blackene, 1-lb. cans...per gro. 13 00
Black Jack, ½-lb. cans. " 9 25
Dixon's Card. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
4-qt..... " 3 75

POTS, FIRE.

Berns.....each, $3 85
Clayton & Lambert's, each, $4 75@6 25
Gate City.....each, 6 25
Gem.....each, $6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%
Henis.....per doz. $1 85

PRIMERS

See Ammunition

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 80%

PULLERS.

Cork.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in., pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 20
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos.....	1	2	3	4
Each.....	$1.10	1.23	1.40	1.85

Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 25
Machine.....per lb 19
Saddlers'.
Common.....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 35

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½c
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 3-00
Jumbo, 36 teeth..... " 5 50

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

List December 5, 1904.

Black and White Japanned.....66⅔%
Nickel Plated.....66⅔%
Electroplated, Brass, Bronze or Copper.....66⅔%

RINGS.

Bull.

Copper.....	2½ in.	3in.
Per doz.....	$1 35	$1 75

Rea's Improved Self-Piercing copper, pr doz 2 00 ....
Steel, per doz..... 85 95
Nickel plated..... 1 35 ....
and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... " 50
Brown's Ringers..... " 80
Champion Ringers.... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....33⅓%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils.. " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality.....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb. 15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....35%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's.....%25
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprize, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling.....25%
One Man.....50%
Panel
Brown's.....30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's.....25%
Disston's.....25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

AW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel.....per doz., 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea..	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in.....	1	1½	1¾
	$3.50	4.00	4.75

Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial

Nos..	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 50
Clipper, grass..... " 8 00
Clover Leaf Dutchman. " 8 00
Honest Dutchman..... " 8 00
Be Ve Be..... " 8 00

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common..... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut..... " 12 00
German..... " 1 05
Morrill's Old Style.... " 5 00
Morrill's Pattern..... " 3 25
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz $1 60
Smith & Hemenway.....20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood..... " 2 75@4 75
Bailey's.....50&5%
Goodell's.....15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
California Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip, doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.00

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Wiss.....40%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c
Reliance.
Per doz ... light, $1.25; heavy, $2 50
Star.
Per doz .... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&5%
(Add for gluing, $2.50 per doz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb ..9¼@9½c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita..... " 17 c
Emery.....60% @60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6½
Oil—Unmounted.
Arkansas Hard .....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille..... " 7 00
Quinnebog..... " 5 00
Red End..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3.50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Blued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker..... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.15 4.50 6.45

TUBS, WASH

Standard, Wood. Ex.
Nos..... 3 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz.... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " " cones.....25c
4 " " " " " 25c
India Hemp, ¼-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....doz. 75c
2-ply Jute, ½-lb. " 14c
3-ply Jute, ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, ½-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 25c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6½c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.....18&20%
Parker's Victor.....15%
Parker's Combination.....75%
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots.
Tinned.....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½
c 6½c 6c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10½
Saw..... " 8½

WEANERS.

Calf.
Puller's, per doz..... $2 00 to $2 50
Tyler's Safety, per dos 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4.00

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b. Chicago....pr ton, 28 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads .. per 100 lbs. $2.65 $2.95
Less than car " 2.70 3.00
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%,33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 20
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....25c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1.....60&net
Always Ready.....50%
Coe's Standard.....40&10&5%
Agricultural.....70&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%

BEMIS & CALL'S WRENCHES.

Improved Adjustable S nut.....40%
Improved Adjustable S pipe.....40%
Briggs' Pattern nut.....40%
Combination Bright.....40%
Combination Black.....40&5%
Steel Handle nut.....50%
Merrick Pattern nut.....60%

WRINGERS.

No. 22, Guarantee.....per doz. $32 50
No. 110, Guarantee..... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 300, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
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U. S. Clothes Pin Co., Montpelier, Vt

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March-Brownback Stove Co., Pottstown, Pa
May & Fiebeger, Akron, O
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Quaker Mfg. Co., Chicago, Ill
Rait, Walter S. & Co., Chicago, Ill
Schwab, R. J. & Sons Co., Milwaukee, Wis
Stove & Range Co of Pittsburgh, Pittsburgh, Pa
Wise Furnace Co., Akron, O
Youngstown Furn. & Supply Co., Youngstown, O

Furnaces—Tinners'

Clayton & Lambert Mfg. Co., Detroit, Mich
Turner Brass Works, Sycamore, Ill

Furnace Pipe and Fittings

Green Fdy. & Furn. Wks., Des Moines, Ia
Meyer, F. & Bro. Co., Peoria, Ill
Mueller, L. J. Furn. Co., Milwaukee, Wis
Quaker Mfg. Co., Chicago, Ill

Gas Stoves

Economy Stove Co., Cleveland, O
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa

Generators—Acetylene

Ideal Epworth Acetylene Co., Waterloo, Iowa, & Johnstown, Penn

Grain Grader

Paxton & Gallagher Co., Omaha, Neb

Grinders

Royal Mfg. Co., Lancaster, Pa

Hangers—Door

Safety Door Hanger Co., Ashland, O

Hangers—Eaves Trough

Schoedinger, F. O., Columbus, O

Hangers—Garment
Pullman Mfg. Co., Rochester, N Y

Hardware Jobbers
Clark, Quien & Morse, Peoria, Ill
Paxton & Gallagher Co., Omaha, Neb

Hardware Specialties
Bemis & Call Hardware & Tool Co., Springfield, Mass
Carver File Co., Philadelphia, Pa
Clark, Quien & Morse, Peoria, Ill
Enterprise Mfg. Co. of Pa., Philadelphia, Pa
Holt-Lyon Co., Tarrytown, N.Y
Paxton & Gallagher Co., Omaha, Neb
Peck-Hamre Mfg. Co., Berlin, Wis
Pullman Mfg. Co , Rochester, N. Y
Pritchard-Strong Co., New York, N. Y
Smith & Hemenwey Co., New York, N. Y

Heaters—Oil
Glazier Stove Co., Chelsea, Mich

Heating
Detroit Heating & Lighting Co., Detroit, Mich
Kelsey Heating Co., Syracuse, N. Y

Heating Plants—Warm Air and Hot Water
Quaker Mfg. Co., Chicago, Ill

Hinges
Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago, Ill

Hollow Ware
Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Ill

Horse Nails
Standard Horse Nail Co., New Brighton, Penna

Huskers—Corn
Kees Mfg. Co., F. D., Beatrice, Neb

Ice Cream Freezers
North Bros. Mfg Co., Philadelphia, Pa

Iron—Enamel
Nickel Plate Stove Polish Co., Chicago, Ill

Kitchen Utensils
Avery Stamping Co., Cleveland, O
Lalance & Grosjean Mfg Co., Chicago, Ill
Leffler, Thiele & Co., New York City

Lanterns
Berger Mfg. Co., Canton, O
Pritchard-Strong Co., Rochester, N. Y

Lawn Fence
Denning Wire & Fence Co., Cedar Rapids, Ia

Lawn Mowers
Clipper Lawn Mower Co., Dixon, Ill

Levels
Baker-McMillen Co., Akron, O
Davis & Cook, Watertown, N. Y

Lighting
Detroit Heating & Lighting Co., Detroit, Mich
Gloria Light Co., Chicago, Ill
Ideal Epworth Acetylene Co. Waterloo, Iowa and Johnstown, Penna

Mail Boxes
Blick-Williams Co., Indianapolis, Ind
Peck-Hamre Mfg. Co., Berlin, Wis

Metal—Perforated
Harrington & King Perforating Co., Chicago, Ill

Metal Polish
Hoffman, Geo. W., Indianapolis, Ind
Nickel Plate Stove Polish Co., Chicago, Ill

Metal Shingles
Burton, W. J. Co., Detroit, Mich
Cortright Metal Roofing Co., Philadelphia, Penna
Nat'l Sheet Metal Roofing Co., Jersey City, N. J
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Miters
Whitacre, J. E. Mfg. Co., Rockford, Ill

Mouse Traps
Animal Trap Co., Zititz, Pa

Nails and Tacks—Copper
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Nuts
Columbus Bolt Works, Columbus, O

Oil Heaters
Glazier Stove Co., Chelsea, Mich

Ornaments—Sheet Metal
Gerock Bros. Mfg. Co., St. Louis, Mo

Paints and Paint Specialties
Buckeye Paint & Varnish Co., Toledo, O
Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N.J
Pitkin Co., Geo. W. Benton Harbor, Mich

Pencils
Dixon, Jos. Crucible Co., Jersey City, N.J

Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Photograph Clips
U. S. Clothes Pin Co., Montpelier, Vt

Pistols
Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Planimeters
Lippincott S. S. & S. Co., Newark, N. J

Plungers
Berger Bros. Co., Philadelphia, Pa

Polish—Metal
Hoffman, Geo. W., Indianapolis, Ind

Polish—Stove
Black Silk Stove Polish Works, at Sterling, Ill
Nickel Plate Stove Polish Co., Chicago, Ill

Pumps
Berger Mfg. Co., Canton, O
Hess-Snyder Co., Massillon, O

Punches
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N.Y

Putty—Stove
Connors, Wm. Paint Mfg. Co., Troy, N.Y

Radiators
Rochester Radiator Co., Rochester N.Y

Rasps
Disston, Henry & Sons, Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Rat Traps
Animal Trap Co., Zititz, Pa

Razors
Smith & Hemenway Co., New York, N.Y

Registers
Ferrosteel Co., The, Cleveland, O
Henry & Scheible Co., Cleveland, O
Independent Register & Mfg. Co., Cleveland, O
Mueller, L. J., Furn. Co., Milwaukee, Wis
Schwab & Sons Co., Milwaukee, Wis
Standard Register Co., Cleveland, O
Symonds Mfg. Co., E. St. Louis, Ill
Tuttle & Bailey Mfg. Co., New York, N.Y

Register Faces
Wooden Ventilator Co., East Palestine, O

Regulators—Time
Quaker Mfg. Co., Chicago, Ill

Revolving Screw Cases
American Bolt & Screw Case Co., Dayton, Ohio

Rifles
Stevens, J. Arms & Tool Co., Chicopee Falls, Mass

Rivets
Columbus Bolt Works, Columbus, O
Garland Nut & Rivet Co., Pittsburg, Pa
Hungerford, U.T., Brass & Copper Co., New York, N. Y

Roasters
Wheeling Corrugating Co., Wheeling, W. Va

Reducing Wheels
Lippincott S. S. & S. Co., Newark, N. J

Roofing—Asphalt
Stowell Mfg. Co., Jersey City, N.J

Roofing—Iron and Steel
American Sheet & Tin Plate Co. Pittsburgh Pa
Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Nat'l Sheet Metal Roof. Co., Jersey City, N. J
Reeves Mfg. Co., Canal Dover, O
Schoedinger, F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn
Sykes Steel Roofing Co., Chicago, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Roofing Cement
Connors Paint Co., The Wm., Troy, N.Y
Taylor Co., N. & G., Philadelphia, Pa

Roof Paint
Dixon, Jos. Crucible Co., Jersey City, N.J

Rules
Lufkin Rule Co., Saginaw, Mich

Sash Balances
Pullman Mfg. Co., Rochester, N.Y

Saw Sets and Saws
Disston, Henry & Sons, Philadelphia, Pa
Smith & Hemenway Co., New York, N.Y

Screens—Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Screen Door Checks
Pullman Mfg. Co., Rochester, N. Y

Screws
Columbus Bolt Works, Columbus, O

Screw Drivers
North Bros. Mfg. Co Philadelphia, Pa

Seamless Tubing—Brass & Copper
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Seed Cleaners
Paxton & Gallagher, Omaha, Neb

Sharpeners—Tool
Royal Mfg. Co., Lancaster, Pa

Shears
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
Weiss, H. & Co., New York, N.Y

Sheets—Black and Galvanized
Berger Mfg. Co., Canton, O
Taylor Co., N. & G., Philadelphia, Pa
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheets—Planished
Follansbee Bros., Pittsburg, Pa
Ward-Dickey Steel Co., Indiana Harbor, Ind
Taylor Co., N. & G., Philadelphia, Pa
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheet Metal Ornaments
Gerock Bros. Mfg. Co., St. Louis, Mo

Shelf Boxes
Green & Co., A. H., New York, N. Y

Shot Guns
Stevens J., Arms & Tool Co., Chicopee Falls, Mass

Shovels
Avery Stamping Co., Cleveland, O

Siding
Milwaukee Artistic Metal Ceiling Co., Milwaukee, Wis

Sifters
Stuber & Kuck, Peoria, Ill

Skylights
Burt Mfg. Co., Akron, Ohio
Eller Mfg. Co. Canton, O
Schoedinger, F. O., Columbus, O
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Skylight Gearing
Weiss, H. & Co., New York, N.Y

Slate Roofing
Auld & Conger Co., Cleveland, O

Solder
Aluminum Solder & Refining Co., Oswego, N. Y
Taylor Co., N. & G., Philadelphia, Pa

Squares, Machinists'
Disston, Henry & Sons, Philadelphia, Pa

Stampings—Sheet Metal
Avery Stamping Co., Cleveland, O

Stoves and Ranges
Champion Steel Range Co., Cleveland, O
Chicago Stove Works, Chicago, Ill
Culter & Proctor Stove Co., Peoria, Ill
Foster Stove Co., Ironton, O
Glazier Stove Co., Chelsea, Mich
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Union Stove Co., New York, N.Y

Stove Cement
Dixon, Jos. Crucible Co., Jersey City, N J

Stoves—Gas
Economy Stove Co., Cleveland, O
Stove & Range Co. of Pittsburgh Pittsburgh, Pa

Stoves—Oil
Glazier Stove Co., Chelsea, Mich

Stove Mats
Stuber & Kuck, Peoria, Ill

Stove Patterns
Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N Y
Weller Pattern Co. Quincy, Ill

Stove Pipe
Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles
Stuber & Kuck, Peoria, Ill

Stove Repairs
Brauer, A. G., Supply Co., St. Louis, Mo
Manufacturers Stove Repair Co., Chicago, Ill
Northwestern Stove Repair Co., Chicago, Ill
Reeves, S. V., Philadelphia, Pa

Stove Trimmings
Cleveland Nickel Works, Cleveland, O

Sugar Kettles
Sperry, D. R. Co., Batavia, Ill

Supplies—Electrical
Manhattan Electrical Supply Co., Chicago, Ill

Supplies—Foundry
Obermayer Co , S., Cincinnati, O
Stevens, F. B., Detroit, Mich

Supplies—Stove Dealers'
Brauer, A. G., Supply Co., St. Louis, Mo

Tacks
Hungerford, W. T., Brass & Copper Wks New York, N. Y

Tanks
St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn

Tapes
Lufkin Rule Co., Saginaw, Mich

Technologist
Hooper, C. N. Dubuque, Iowa

Test Tube Holders
U. S. Clothes Pin Co., Montpelier, Vt

Thermometers—Oven
Evans Stamping & Plating Co., Taunton, Mass

Time Regulators
Quaker Mfg. Co., Chicago, Ill

Tin—Perforated
Harrington & King Perforating Co., Chicago, Ill

Tin and Terne Plate
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Taylor Co., N. & G., Philadelphia, Pa

Tinners' Tools
Berger Bros. Co., Philadelphia, Pa
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Smith & Hemenway Co., New York N.Y
Taylor Co., N. & G., Philadelphia, Pa

Tinplate
American Sheet & Tin Plate Co., Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton O
Follansbee Bros. Co., Pittsburgh Pa
Merchant & Evans Co., Philadelphia, Pa
Schoedinger, F. O., Columbus, O
Taylor Co., N. & G., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings
Berger Bros. Co., Philadelph'a, Pa
Butler Bros., Chicago, Ill

Tools, Etc.
Bemis & Call Hardware & Tool Co., Springfield, Mass
North Bros. Mfg. Co., Philadelphia, Pa

Tools—See Carpenters' Tools

Tools—Linemen's
Smith & Hemenway, New York, N.Y

Tool Sharpeners
Royal Mfg. Co., Lancaster, Pa.

Trowels
Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Brass and Copper
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Tubing—Heavy Tin
Dieckmann, F., Cincinnati, O

Ventilators
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago Ill
Globe Ventilator Co., Troy, N.Y
Merchant & Evans Co., Philadelphia, Pa
Powers Bros. Streator, Ill
Pullman Mfg. Co., Rochester, N. Y
Schoedinger, F. O., Columbus, O

Wagons
Sycamore Wagon Wks., Sycamore, Ill

Washers
Columbus Bolt Works., Columbus, O

Washing Machines
Brammer, H. F., Mfg. Co., Davenport, Ia
White Lily Mfg. Co., Davenport, Ia and Toledo, O

Water Motors
Lippincott S. S. & S. Co., New York, N.Y

Wire Goods
Denning Wire & Fence Co., Cedar Rapids.
Pittsburgh Steel Co., Pittsburgh, Pa

Wrenches
Bemis & Call Hardware & Tool Co., Springfield, Mass

Wants and Sales

For Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in

THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS

HUBERT E. PECK, 623 F. St., N. W. Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Application."

$45,000 cash buys American rights to patented specialty in ventilators. New principle. Proved success. Profitable. Readily worked. Patentees would take part shares in a company. Address E. 59, care of THE AMERICAN ARTISAN. 69 Dearborn St., Chicago. 18-2t

For Sale—One-half interest in thriving hardware and implement business in good live town; best of farming country. Located at Manito, Illinois. Good reason for selling. Address George Knollhoff, Manito, Illinois. 17-2t

For Sale—On account of death of one partner, half interest in our hardware business. Situated in one of the best towns in northern Ohio. Last year's sales $48,000. For particulars inquire of R. S. Rodgers, 507 Park Blvd., Cleveland, Ohio. 17-3t

For Sale—Either whole or half interest in a good paying plumbing and heating business. Also have tinner's tools. In good town in Illinois. Address for full information E-55, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 17-3t

For Sale—Fine hardware business in good North Dakota town, stock about $5,000. Yearly sales about $23,000. Brick building 25x110; will sell or rent. Must sell quick for cash. Best of reasons. Address E-56, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 17-3t

For Sale—One-half or all of a tinshop located in northern Arkansas town, doing a good business with plenty of work in sight. Will sell cheap, good reason for selling. Address E. 53, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 16-3t

Good opening for cripple or old man to open a general repair tinshop, for inside work. Address S. N. Quillen, Secretary Commercial Club, Linton, Indiana. 15-3t

TINNERS' TOOLS.

For Sale—At a bargain, one set new "Peck Stow and Wilcox" tinner's tools, including square shear. Will sell any one or all at a bargain. Write quick. Lock Box 662, Monticello, Iowa. 15-3t

Wanted—Second-hand tinners' tools. Describe and give best cash price separately. Lock Box 228, McArthur, Ohio. 15-3t

HELP WANTED.

Wanted—At once, a good all around tinner, plumber and furnace man. Steady job the year around. Will pay good wages. Northern Iowa. Address E. 57, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 17-3t

Wanted—Good tinners. Will pay good wages for good men. No other need apply as we must have good mechanics. State wages in first letter. Macomb Sheet Metal Works, Macomb, Illinois. 17-3t

Wanted—Two first-class tinners and furnace men. Good wages and steady work; married men preferred. Address Chas. H. Hart, 53 La Salle St., Aurora, Illinois. 16-3t

Wanted—Tinner or Furnace Man. Good sober man; steady job; mostly furnace work and placing stoves. Address Henry Matern, 713 Water St., Sandusky, Ohio. 16-3t

Wanted—An experienced plumber and tinner. Must be sober, steady and reliable. Steady job for the right man. In a county seat town of 3,000. State wages wanted and experience in first letter. Address Boyle Brothers & Company, Blackfoot, Idaho. 17-3t

Wanted—A good all around tinner. Must be strictly sober. Good wages; enclose stamp for reply. Address E-54, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 17-3t

Wanted—First-class tinner by the Zinser Hardware Company, Joliet, Illinois. 17-3t

Wanted—At once, one good tinner; also a good plumber. Address S. E. McLaughlin, Manteno, Ill. 12-3t

Wanted—At once, a good tinner with some knowledge of plumbing. State wages and references in first letter. Address F. M. Staples, Spencer, Iowa. 13-ufn

SITUATIONS WANTED.

Situation Wanted—By a tinner, plumber and steam fitter. 12 years' experience in large city and country towns. Sober and industrious. Address Wm. Meyer, Algoma, Wis. 18-3t

Situation Wanted—As manager or foreman of hardware store in Montana or North Dakota; or would like to manage hardware department in mercantile company. Am a sheet metal worker, and understand furniture and harness thoroughly, and have done some pipe fitting and furnace work. Ran a store for thirteen years. Am middle aged, married, sober and careful. Address E 60, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 18-3t

Situation Wanted—Practical plumber and tinner, active, sober and reliable, desires situation with appreciative firm. Would consider an interest. Address E. 58, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 18-3t

Wanted—Situation as hardware clerk. Have had ten years' experience and can give best of references. State wages in first letter. Address E-48, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 16-3t

Situation Wanted—By first-class plumber, steam and hot water fitter in a smaller city. Can also assist at tinning. Address Jesse M. Wildrick, General Delivery, Seattle, Wash. 15-2t

SPECIAL NOTICES.

WANTED

TINNERS AND CORNICE MAKERS To write for particulars and free sample blue print explaining our method of cutting patterns. Price and terms are within the reach of all.

New Plates. New Instructions. New Methods. The E. R. PROBERT SCHOOL, Cincinnati, O.

POSITION WANTED

By a young man, with fifteen years' practical experience, as Sales and Advertising Manager of a Stove Company desiring to increase its trade. Best of reference. Address B-85 care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Illinois. 15-6t

FOR SALE

Up-to-date hardware store with tinshop; established ten years. Will invoice about $3,500. On West Side, Chicago. Address, "West Side," care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 12-ufn

$45,000 CASH

BUYS AMERICAN RIGHTS TO PATENTED SPECIALTY IN VENTILATORS. NEW PRINCIPLE. PROVED SUCCESS. PROFITABLE. READILY WORKED. PATENTEES WOULD TAKE PART SHARES IN A COMPANY. ADDRESS, B-95, CARE OF THE AMERICAN ARTISAN, 69 DEARBORN STREET, CHICAGO. 18-2t.

FOR SALE

If you are looking for a business with established trade, in a prosperous, growing condition, located in best part of the city, supported by a rich country and prosperous farmers, I offer you my stock of hardware including farm implements and buggies. Good reason for selling. For anyone looking for this line of business, address B-92 care of THE AMERICAN ARTISAN, 69 Dearborn St. Chicago. 18-4t

ENAMEL

With nearly 34 years experience in all branches of the enameling business, in foreign countries as well as here, I am in shape to furnish "only" first-class formulas for vitreous Enamels. Dry and wet process for cast iron. Strictly one-coat enamels for Kitchen-ware. Also base-coat with one coat white, blue, blue-green, copper-red, etc. The finest, best and cheapest one coat white, blue-green and copper-red in the world. Address: JOHN PEIL, Columbus, Ohio. 17-ufn

FOR SALE

Fine clean stock of hardware, with tin shop and plumbing shop. Attractive, modern store, well arranged, with agencies for some of the very best standard lines. Business established 25 years ago, located in a progressive county seat town, in Eastern Nebraska. Business is for sale for cash only, and is sold on account of a death in family necessitating a change of residence. Stock will invoice about $10,000 and sales will run $30,000 yearly. Address B-83, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 13-ufn

Situation Wanted

as stove salesman for any Western States. Southern Iowa or Northern Missouri preferred. Correspondence solicited. Am an experienced stove salesman. Address, Dwight Davis, Lamoni, Decatur County, Iowa. 16-ufn

WANTED

Traveling specialty or stove salesmen, who cover their territory in intervals, to handle a well-advertised house hold article (an acknowledged leader in its class) as a side line, on a liberal commission basis. We offer an unusual opportunity for hustlers to connect with a responsible, large and rapidly growing corporation. State territory now covered by you and line you are selling. Address H. C. LENDLE, Secretary, 1371-1393 Carroll Avenue, Chicago, Illinois. (13-3t)

In Every Town

I would like one reputable hardware man or tinner to manufacture for our mutual benefit a patented device made of galvanized sheet steel to supply the trade in his territory. Retails from $1.00 up. Address, R. Merrill, Merrill Bldg., Milwaukee, Wisconsin. 16-3t

No Cheap Construction About This

The regular stock 48-inch Burt Ventilator, which you see here supporting eleven able-bodied men, of total weight 1762 pounds, weighs itself only 320 pounds! But—it is honest workmanship, strong "Burt" bracing and extra heavy iron used (as in all Burt's) gives Burt's the durability, which is sure to stand long years of wear, as well as any unusual temporary strain.

A brand new feature is the fusible link connection which closes the damper automatically in case of fire.

Send for our new eighty page Catalogue, giving fine illustrations of Mills, Factories, Shops, Foundries and Residences where Burt Ventilators are in successful use.

The Burt Manufacturing Company, 650 Main St., Akron, O.

The largest manufacturers of oil filters and exhaust heads in the world.

SPECIAL NOTICES.

WANTED.

A position by January 1st, by an all around hardware man. Ten years experience in large retail store. Capable in all branches of hardware work. Or would invest some money in right kind of proposition. Address "CAPABLE," care THE AMERICAN ARTISAN, 69 Dearborn street, Chicago. 17-4t.

WANTED.

First-class Iron Stove Pattern Fitter. Steady work. Good wages. Prefer one who is familiar with White Metal Work. Address B-88, care THE AMERICAN ARTISAN, 69 Dearborn street, Chicago. 17-2t.

Foreman Wanted.

For die room; must be familiar with sheet metal stampings. Good opportunity for the right man. Address B-89, care THE AMERICAN ARTISAN, 69 Dearborn street, Chicago. 17-3t.

WANTED

To become connected with either a good retail or wholesale hardware and stove establishment, either in Colorado and surrounding States, or in State of Washington. Address, B-90, care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 17-ufn.

WANTED

First-Class Stove Salesman. State age, experience and salary wanted. Address, B-91, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 18-3t.

FOR SALE

Good plumbing and heating business with building and lot. Old established business. Best town in Illinois. $25,000, one half cash or equivalent, balance in clear farm land which must be productive. Address B-87, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 16-4t

WANTED

First-class stove salesman for Kansas. Good salary to man who can get the business. Address BLAKESLEY-TUTTLE STOVE CO., Station A, Kansas City, Mo. 16-ufn.

WANTED

For Western Territory, several first-class salesmen with road experience to sell high-class line of furnaces and boilers of a representative manufacturer. Established trade in territory. Excellent opportunity for first-class men. Address, B-93, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 18-ufn.

FOR SALE

Hardware stock invoicing about $7,000 in a small Illinois town. Doing a good business. Good reasons for wanting to sell. Address, B-93, care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago. 18-4t.

WANTED

A line of Gasoline Stoves, Refrigerators and Sheet Metal Goods for territory of Montana, Idaho, Utah, Colorado and Wyoming on commission basis. Address, Box 883, Joliet, Ill. 18-4t.

FOR RENT

In a Good Live Town, Two Story Brick building. Has been used for Hardware since 1888. 100 feet long, with Ware room, well located, has elevator. Long lease, favorable terms; immediate possession. Three railroads in town. Address E. S. ROSS, Gibson City, Ill. 18-3t

WANTED—A PARTNER

in plumbing and tinning business, now established at Lawton, Oklahoma. The right party, skilled in business, with good reference, can secure interest in a splendid established business with very little money. Write for full information to JAMES M. POWERS, Lawton, Okla. 16-ufn.

TO EXCHANGE

640 acres Wilkin County, Minnesota, level black prairie land. Encumbrance $10,000, five years at 5% interest. Owner will exchange for a good stock of hardware or implements. Address B-86, care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 16-4t.

Philosophy of Protective Paint

A practical treatise on the subject of protective paint by a practical paint man. Write for free copy No. 18 B.

Joseph Dixon Crucible Co., Jersey City, N. J.

You Don't Have to Take Our Word for the Reliable

GOODNESS OF

COAT-ROID RUBBER ROOFING

Nor do you have to ask your customer to depend on your simple assertion that it is all right. We will give you

A WRITTEN GUARANTEE

to be handed to anyone who wants to be "shown." We agree to furnish new roofing FREE if COAT-ROID proves defective, and we will protect you and your customer just as absolutely as COAT-ROID will protect the building.

ASK ABOUT OUR EXCLUSIVE AGENCY PROPOSITION THERE IS MONEY IN IT FOR YOU!

St. Paul Roofing, Cornice and Ornament Co.

Everything in Metal Roofings — ST. PAUL, MINN.

EVERYTHING YOU NEED IN YOUR FOUNDRY

We are Headquarters for

Foundry Facings, Plumbago, Graphite, Putty and Supplies of Every Description. In fact—

Everything You Need

in your foundry.

Get Catalog No. 40-A NOW.

Established 1874

THE S. OBERMAYER CO.

Cincinnati Chicago Pittsburg

BLACK **Silk** STOVE POLISH is the NAME

The Only Kind

that you dare

Buy in Quantity

Age Actually Improves It

Guaranteed

Not to dry out or rust through can.

MADE AT STERLING ILL., U.S.A. The Home of Black Silk Stove Polish

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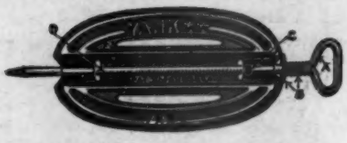

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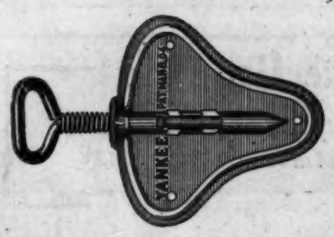

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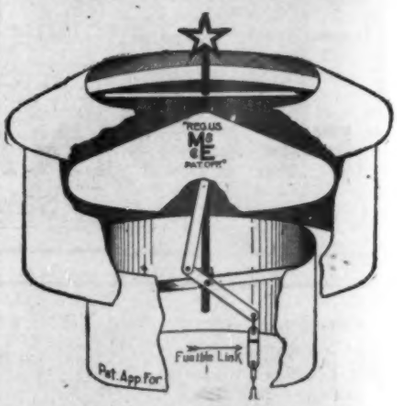

The roof of this Ventilator is movable vertically, and is held in its highest open position by a lever movement, controlled by a fusible link. In case of fire the link parts, and the top drops down by gravity, closing the opening.

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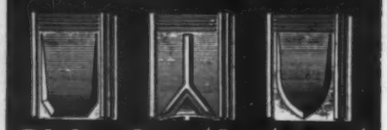

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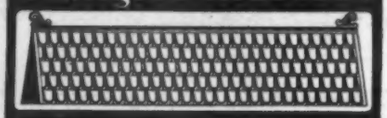

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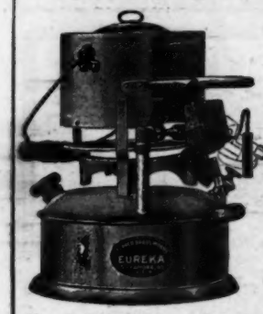

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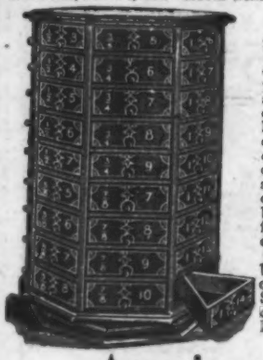

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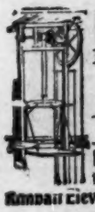
Sell them Blick No. 3 boxes. They are big ones, 6½ x 8½ x 19 inches. Made of heavy galvanized steel. Painted green, the new government color. Same shape and color as city boxes. Have Positive-Locking Flag Signal, Automatic Latch, Watertight Quality. Every box tested, every box right, every box warranted. They will get the business. You better get them. Order now.

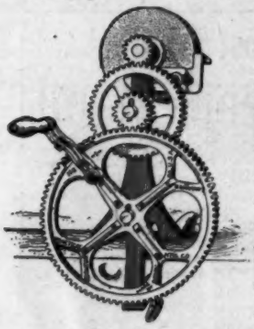
$5.88 per Doz.

Blick-Williams Co.
Indianapolis, Ind.



ELEVATORS
Improved Quick and Easy, Rising Steam, Electric and Hand Power.
SEND FOR CIRCULAR
KIMBALL BROS. CO.
1031 Ninth St., COUNCIL BLUFFS, IOWA
Kimball Elevator Co., 139 Vincent St., Cleveland, O.

"WAY AHEAD"



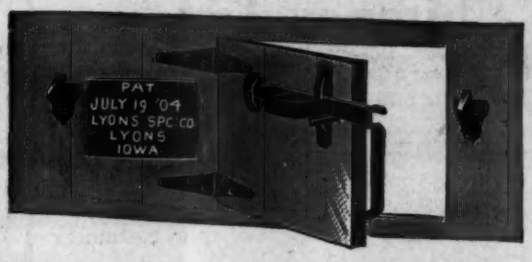
Of the grindstone or any other apparatus for sharpening table or kitchen cutlery or edge tools of every kind are our

Hand and Foot Power
Grinders & Tool Sharpeners

Four sizes. Needed in every home—every day in the year. Every grinder guaranteed. Be sure; Get our catalogue with Discounts to the trade—to-day.

ROYAL MANUFACTURING CO.
108 E. Walnut Street, Lancaster, Pa., U. S. A
New York, 176 Fulton Street, Herbert Porter & Co., Managers
Chicago, 113-115 Michigan St., E. G. Curtis & Son, Managers

Remember the **"PETERSEN"** Something Good for Hardware Men



The Petersen Everlasting Steel Barn Door Latch and Holder

Bran new, born in Lyons, Iowa.

This latch *is double acting, will hold your barn door open or shut,* is the only latch and holder on the market without a spring, which generally gives out in a year or two. This latch has a steel handle on each side of the door.

LYONS MFG. CO., Sole Manufacturers, LYONS, IOWA
We Always Have the Petersen Latch in Stock and Make Prompt Shipments

A Harvest of Dollars for Dealers who handle

KEES No. 5 **KEES** "TWELVE-IN-ONE"

Corn Huskers

(The Huskers with a REPUTATION based on QUALITY.)

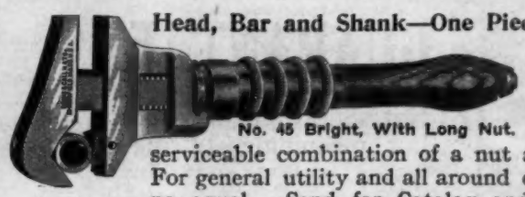
5,000,000 corn pickers will read about them in the leading farm papers during the husker-selling season. Your customers will ask YOU for them.

If your'e not already a KEES dealer, be one. Order from your jobber today or send for catalog and prices.

F. D. KEES MFG. CO., Box 522, Beatrice, Nebraska

COMBINATION PIPE AND NUT WRENCH

Head, Bar and Shank—One Piece Steel Forging.



No. 45 Bright, With Long Nut.

Made from the best materials. Parts interchangeable. A strong and serviceable combination of a nut and pipe wrench. For general utility and all around convenience it has no equal. Send for Catalog and Prices.

BEMIS & CALL HARDWARE & TOOL COMPANY, SPRINGFIELD, MASS.

HOLT'S Improved DOVER
Egg Beater & Cream Whip
Guaranteed to Beat EGGS to Perfection in 20 Seconds
The Flared Dasher Does It.
WASH SOON AS USED BY TURNING IN WATER.

The above on a Tag is wired to every Egg Beater made by us.

The Holt No. A Egg Beaters are much larger and heavier every way than any 10 cent Dover made.

Retail Price 15 Cents, worth 25 Cents.

The Dashers are wider, thicker and flared ¼ inch. Made in 10, 15, 20 and 25 cent size. 5 years on the market.

Sold by Jobbers. Ask for Price List Circulars.

HOLT-LYON CO., Tarrytown, N.Y.

We Have a Hardware Delivery Wagon That You Can Depend Upon

Body 20 in. from the ground; full width; regular heighth wheels; and yet will turn short.

EASY TO LOAD AND UNLOAD

Durability guaranteed.
Complete catalogue on request.
Mention this paper and address in full.

SYCAMORE WAGON WORKS

109 Edwards Street, SYCAMORE, ILL.

Clipper Lawn Mower Co. DIXON, ILL.

Manufacturers of Hand and Pony Mowers, also Marine Gasoline Engines from 2 to 8 horse power.

THE MOWER That will kill all the weeds in your lawns

If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders or roots, the grass will become thick and the weeds will disappear. The Clipper will do it. If you wish Clippers, send in your orders.

HAVE YOU A RING IN YOUR TAIL?

I have. My name is **The "Ring Tail Red Devil."** I hang up by the tail. My handle don't warp. My blade is always keen. I am put up in an antiseptic case. I am a good shaver, not a poor one. Have you got me in stock? If not, order a sample and you will not keep me, the other fellow will want me. **THE GENUINE "RED DEVIL" RING TAIL RAZOR.**

SMITH & HEMENWAY CO., 108-110 Duane St., New York City

THE UMBRELLA CLOTHES BAR

32 FEET DRYING SPACE

THE MARTCROSS CO., 40 Dearborn St., CHICAGO

Where Successful business men have advertised is pretty safe to advertise

STRAP & T HINGES

Pressed Steel Shelf Brackets

BUTT HINGES

Barn Door Hangers and Track

Our Planished Steel **STRAP and T HINGES** are now all made on Automatic Machinery—Every one is as true as a Die. Our **BUTTS** are unequalled in Workmanship and Finish, All our Goods Guaranteed—**BEST IN THE WORLD.** (And they cost no more.)

THE GRIFFIN MFG. CO., - Erie, Pa.

AKRON ECLIPSE LEVELS

All glasses in **Akron Eclipse Levels** are carried on elastic bearing and enclosed in heavy glass tubes and are almost unbreakable.

SEND FOR CATALOGUE ILLUSTRATED IN COLORS

The BAKER McMILLEN CO., Akron, Ohio, 13 Bowery St.

Magic Pattern Rule Will Lay Out Patterns

For any size and angle of elbows in three minutes' time. Can also be used as Straight-edge Rule, Circumference Rule and Trammel. Should be in every Tinshop. Will save its cost in a few weeks. Thousands are in use and every one giving excellent satisfaction.

Price, complete in a nice Wooden box with Chart, $4.00 net cash

LUFKIN RULE CO., SAGINAW, MICHIGAN (Mention THE AMERICAN ARTISAN)

THE SHAVEZY GUARD

May be adjusted to any blade.
Instantly changed from right to left.
Is the best and a Cheap Guard.

Get my prices, which are right.

L. T. WEISS, Sole Manufacturer
288-290 Taaffe Place, BROOKLYN, N.Y.

"NEVER-BREAK"
TRADE MARK

Catalog Free

"NEVER-BREAK"
Steel Spiders, Griddles and Kettles

WILL NOT
Scale Off like cheap enamel.
WILL NOT
Scorch or Burn like light fry-pans and skillets.
WILL NOT
Absorb Grease or Flavors like cast iron.

THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods.

PULLMAN
SASH BALANCES

Are you selling them?

IN USE EVERY-WHERE

Send us your orders

PULLMAN MFG. COMPANY
ROCHESTER, N. Y., U. S. A.

THE AMERICAN ARTISAN Ads Bring Results.

"THE DENNING"
Corn Cribs and Grain Bins

are handled by dealers everywhere.

The Denning Fence is famous for its Peerless Tie.
The Denning Lawn Fence is ornamental.
The Denning Barb Wire is perfect.

Write us for catalogue and prices.

THE DENNING WIRE & FENCE CO., Cedar Rapids, Ia.

W. F. GUENTHER & SONS, Owensboro, Ky., write:

"We feel that we cannot get along without THE AMERICAN ARTISAN and HARDWARE RECORD."

THE WHITE LILY

SELLS AND STAYS SOLD

There are more WHITE LILY WASHERS SOLD than of any other make of WASHING MACHINE.

DO YOU WANT A GOOD SELLER WRITE TODAY

White Lily Manufacturing Co.
TOLEDO, OHIO. DAVENPORT, IOWA.

Freezes two flavors of Ice Cream or an Ice or Sherbet and Ice Cream at one and the same time in one freezer — something entirely new, never done before.

"American Twin"

"Lightning"

"Blizzard"

THEY ARE
Well Advertised,
In Demand,
Easily Sold,
Satisfactory in Use,
Of Known Reputation.

THEY EXCELL IN
Easy Running,
Quick Freezing,
Economy,
Convenience,
Practical Results.

THE BEST ICE CREAM FREEZERS in practical use, because convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work

Sold by leading jobbers. **Catalog sent free.**

North Bros. Mfg. Co., Philadelphia

"LET THE ROYAL BLUE WASH FOR YOU"

A phrase widely advertised in all principal farm papers and magazines, and which coupled with the many superior features of the "Royal Blue" washer, is creating a strong and ever increasing demand for this splendid machine. **We locate the customer, you make the sale.**

MR. DEALER: Carry the "Royal Blue" in stock and be prepared to take care of your customers. The discerning public does not want imitations, it wants the genuine article, the "Royal Blue", the best that's made.

Sold only on the Exclusive Agency Plan.

THE
ROYAL BLUE
Has Revolving Anti-Friction Steel Cogs

Is Strong, Durable, Runs Easy, Washes Clean, does not Tear the Clothes and is fully Guaranteed.

H. F. BRAMMER MFG. Co., Davenport, Iowa.

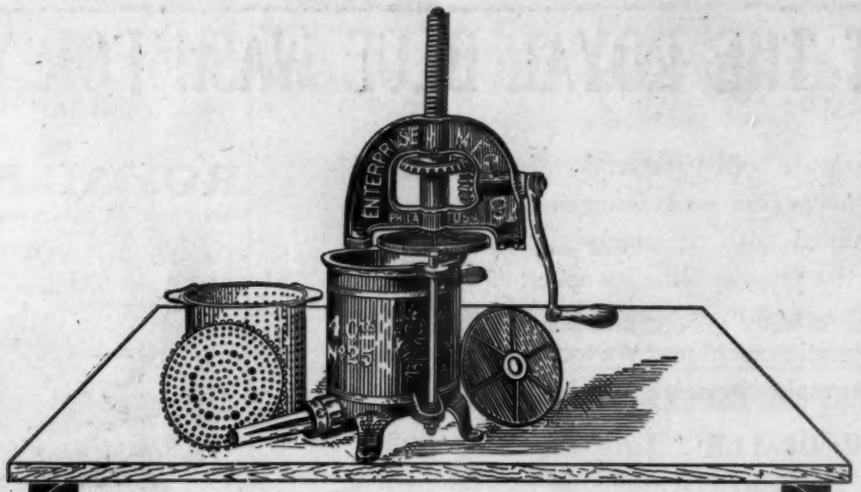
? DID IT PAY ?

Every Hardware Dealer interested in the subject of Window Displays should send for a copy of our booklet "Did It Pay," in which we have combined the experiences of a large number of dealers who have made **Window Displays that increased sales** showing photographs of their windows, details of arrangement of goods, different methods employed to get the crowds into their stores, their interior store displays, special window signs, advertising campaigns in local papers, etc., etc.

Itls Simply Full of New Ideas

THE PRITCHARD-STRONG CO.

25 CIRCLE STREET - **ROCHESTER, NEW YORK**



The great secret of successful enterprise is to prepare in time to push the *right thing* at the *right time*. Just *now* get ready for selling the famous **Sausage Stuffer and Lard Press** marked:—

"ENTERPRISE"

You know its good points. So do your customers. The whole story is on page 45 in our catalogue. Have you a copy handy? If not, write

The Enterprise Mfg. Co. of Pa., Philadelphia, U. S. A.
New York, 21 Murray St. San Francisco, 438 Market St.

MANHATTAN DRY BATTERY CAN'T BE BEAT

Sell Electrical Goods

(Supplies and Novelties for the Holidays)

CHRISTMAS TREE OUTFITS for use on Electric Light Circuits or with batteries where the first is not available.
ELECTRIC ENGINES, MOTORS and RAILWAYS for the Boys.
Send for Catalog No. 22H—mentioning your jobber's name.

MANHATTAN ELECTRICAL SUPPLY CO.
186-188 Fifth Ave., CHICAGO

LIPPINCOTT WATER-MOTORS

For polishing, grinding, running FANS, SEWING MACHINES, WASHING MACHINES, ICE CREAM FREEZERS, etc., etc.

"YOUR FAUCET IS YOUR POWER"

The Best Line a Dealer Can Handle.

Fig. 3—Motor with Spur Gear Attachment and Air Pump.

Fig. 1—shows the 6-inch motor attached to an ordinary faucet and carrying a small emery wheel for grinding purposes.

Fig. 3—used for charging storage tanks for pumping Automobile tires, and for soldering, brazing' artists' air brushes, and other purposes requiring air at a pressure of from 10 to 125 lbs.

We Also Make

ENGINE INDICATORS
REDUCING WHEELS
PLANIMETERS, Etc.

Fig. 1—Six-Inch Motor and Emery Wheel.

LIPPINCOTT S. S. & S. CO., Newark, N. J.

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For Plumbers, Steam Fitters, Architects, Builders, Apprentices and Householders. Containing Practical Information of all the Principles Involved in the Construction of Steam, Hot Water, Acetylene Gas Plants and how to properly do Gas Fitting. By Jas. J. Lawler. Revised by Geo. C. Hanchett. Large 12mo., cloth, elegantly illustrated. Price, $2.00.

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Prepared for the Steam and Hot Water Heating Course at the New York Trade School, with Supplementary Chapters on House Heating, Specifications and Surface Estimating. By Thos. E. McNeil. 140 pages, numerous illustrations and diagrams. 5x7 in., cloth. Price, $1.00.

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DANIEL STERN.
Publisher and Bookseller
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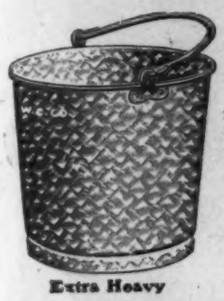
We Are After Your Business on Galvanized Coal Hods, Wash Tubs—Water Pails—Fire Pails—Well Buckets—Etc.

ALL OF THEM THE WHEELING BRAND.



Extra Heavy

We Galvanize The WHEELING WARE After it is Made

Well Bucket

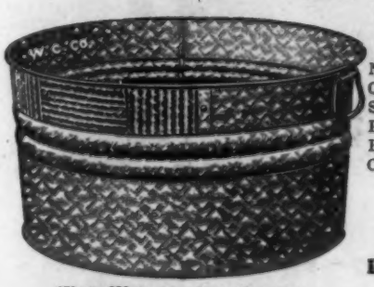
Patent Self Dipping Well Bucket

Fills Itself When It Strikes the Water

Wheeling Coal Hods

Wheeling Corrugating Co., MAIN OFFICE AND WORKS: **Wheeling, W. Va.**

WE SOLICIT YOUR ORDERS



With Wringer Attachment

Branch Offices and Warehouses:

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QUICK SHIPMENTS

Large Stocks of all our Products Are Carried at the Factory and in All the Warehouses

The Wheeling

Seamless Non-Leak Pyrolite Ware

Quadruple-Coated White Lined
Durability and Finish Unsurpassed
Shape Scientifically Correct and Assortment Unequalled

Noteworthy features: Rivetless Seamless Spouts and Lips on Tea Kettles, Tea Pots, Coffee Pots, etc. Positively **without** a seam and therefore **absolutely Non-Leak.**

Open Stock Plain Turquoise at New York

The demand for **Good** Enameled Kitchen Ware is **insistent** and **increasing.** Particularly when your customers **hold you personally responsible.**

Seamless Pyrolite Samples on request; no obligation, Catalog No. 5.

LEFFLER, THIELE & COMPANY

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35 Sizes and Styles for Hand, Steam and Electric Power

This is *the* Chopper

The Revolving Steel Blades and Perforated Steel Cutting Plate *cut* the meat clean and clear—don't tear or grind.

No—there's nothing like it on the market.

It is in a distinct class
The "Enterprise" Class.

To increase your trade in "Enterprise" Meat and Food Choppers, write for copies of "An Enterprise Peace Offering," a booklet for free distribution. Send for Illustrated Catalogue.

THE ENTERPRISE MFG. CO. OF PA.
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NEW YORK, 21 Murray Street SAN FRANCISCO, 438 Market Street

AGATE NICKEL-STEEL WARE

AGATE L&G Mfg. Co. NICKEL-STEEL-WARE

Is absolutely free from poisonous substance, is made by careful, experienced men, by a company founded in 1850. The first enameled ware and blue and white ware made in this country was made in our mills. We know how to make enameled ware safe and durable. We make it safe and durable because we are proud of the trade mark. Look for the blue label.

Lalance & Grosjean Mfg. Co.

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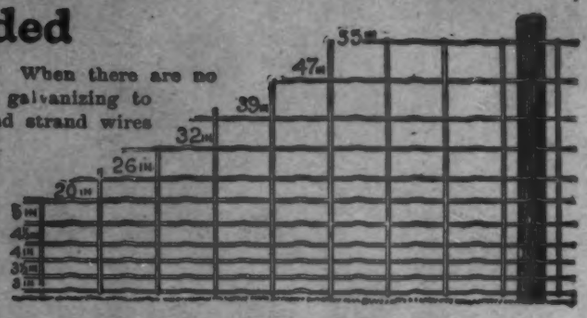
"Pittsburgh Perfect" Fences

Electrically Welded

When the joints are electrically welded there are no wraps. When there are no wraps there is no chance for moisture to accumulate, for the galvanizing to crack, for the wire to be rusted. Stays cannot slip; stay and strand wires become one piece when the union is made. These fences



WILL LAST LONGER THAN ANY ON THE MARKET

WRITE FOR CATALOG

Pittsburgh Steel Co., Pittsburgh, Pa.

Disston Hand Book on Saws.

Yours for the Asking

This new edition contains 208 pages of useful, practical information—articles on The Making of the

DISSTON SAWS, TOOLS AND FILES,

giving the progressive steps in their manufacture, a large number of illustrations of the works, together with TREATISES on the CARE and USE of Saws, etc.

HENRY DISSTON & SONS, Inc.

KEYSTONE SAW, TOOL, STEEL AND FILE WORKS

PHILADELPHIA, PA.

STEVENS

Our Advertising Department

Works WITH you and FOR you. Realizing that the average merchant has frequently no time to prepare advertisements for display in his local newspapers, and being anxious to assist the TRADE in every way possible, we have originated some advertisements ourselves, featuring the STEVENS. Our cuts are mortised, thus allowing space for the printed advertisement.

THESE ADVERTISEMENTS ARE STRIKING IN DESIGN AND BOUND TO CREATE INTEREST. THEY WILL SURELY PROVE THEIR EFFICIENCY AND "PULLING" POWERS IN YOUR LOCAL NEWSPAPERS, AND WILL BE FURNISHED ON APPLICATION. OUR ONLY EXACTION BEING CONSIGNEE TO DEFRAY EXPRESS CHARGES, WHICH ARE MODERATE, GENERALLY SPEAKING.

Ask your Jobber for the STEVENS. Send for 160 Page Catalog.

J. STEVENS ARMS & TOOL COMPANY

460 MAIN STREET,

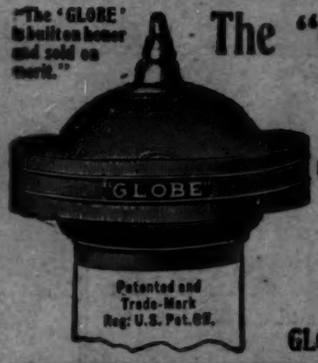
CHICOPEE FALLS, MASS., U. S. A.

THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size, and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the

J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit."



The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes

Absolutely Storm Proof

For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character

SMOKY CHIMNEYS CURED

"GLOBE VENTILATED RIDGING"

Send for Pamphlet

Manufactured by
GLOBE VENTILATOR CO., Troy, N.Y.

STAY-IN Flue Stoppers

are **guaranteed** to be absolutely soot proof. Cannot be jarred or blown from flue hole.

Finished In Brass and Nicoly Decorated

MANUFACTURED BY
STUBER & KUCK, Peoria, Ill.

We Also Manufacture PIECED TINWARE and All Styles of FLOUR SIFTERS

FOLLANSBEE BANFIELD PROCESS ROOFING TIN
IS GUARANTEED 15 YEARS

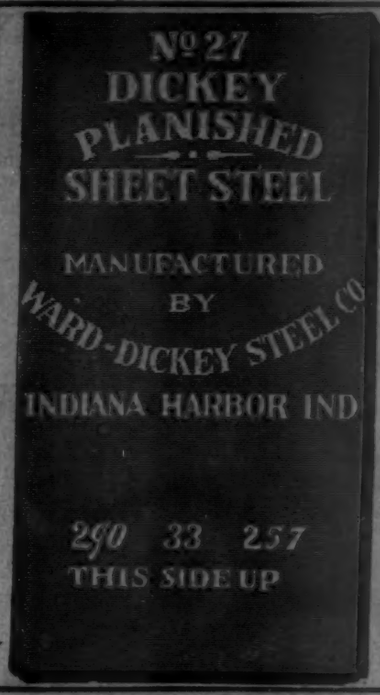
MADE AND SOLD BY

FOLLANSBEE BROS. CO.

MANUFACTURERS OF

SCOTT'S EXTRA COATED HAMMERED OPEN HEARTH

ROOFING PLATE PITTSBURGH



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Soft Tough

HOLDS COLOR UNDER LONG AND HIGH HEATS

No Breakages

This Space for Sale.
Inquire of Daniel Stern,
69 Dearborn St., Chicago

Technologist
Vitreous Enameling
Designs and builds new plants. Improves quality and reduces cost in those already established.
C. N. HOOPER, Dubuque, Ia.

STAR EXPANSION BOLTS
ALL KINDS

WE MAKE EXPANSION PARTS TO FIT THE BOLTS AND SCREWS YOU HAVE IN STOCK

ANYTHING TO FIT FROM THE SMALLEST WOOD SCREW TO THE LARGEST LAG OR MACHINE

Samples and Catalog on Request
STAR EXPANSION BOLT CO.
BAYONNE, N. J.

PRESERVING SEASON IS HERE

WE MAKE PRESERVING KETTLES
From 2 Qts. to 15 Qts., in

Blue and White and Enameled

Gray Mottled Ware

ALSO OVER 500 OTHER FAST SELLING ITEMS

Star ★ Enameling & Stamping Co., PITTSBURGH, PA.

Tinsers Find Employment
By advertising and using
THE Powers Automatic Chimney Tops

They make chimneys draw, give tinsers employment making stocks and give the dealers profit.
Sold by Hardware Jobbers and Dealers.

Made only by
POWERS BROS.
Streator, Ill.
This cut free to dealers

THE "CENTENNIAL"
RAIN-WATER CUT-OFF

The strongest, most durable and cheapest CUT-OFF on the market.

The only single cut off made to fit Corrugated and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

Patent applied for.
Manufactured only by
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